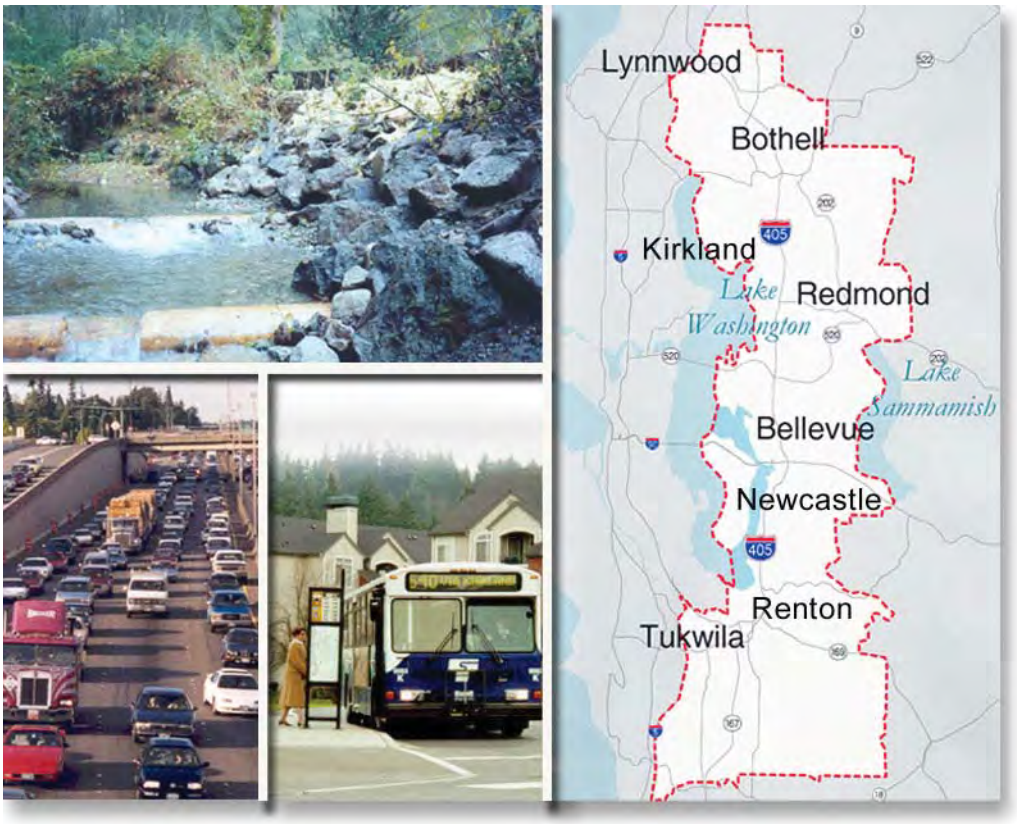
I-405 Corridor Program

NEPA/SEPA
Final Environmental Impact Statement and **Final** Preliminary Section 4(f) Evaluation

Volume 3 of 3 June 2002



U.S. Department of Transportation
Federal Highway Administration
Federal Transit Administration

King County Department of TRANSPORTATION

Washington State Department of Transportation

SOUND TRANSIT
The Central Puget Sound Regional Transit Authority

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APPENDIX A

I-405 Corridor Program
Major Elements of Alternatives

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Appendix A
I-405 CORRIDOR PROGRAM
MAJOR ELEMENTS OF ALTERNATIVES

The Major Elements are described below. Specific projects included in each Major Element are provided in Appendix B.

1. TRANSPORTATION DEMAND MANAGEMENT

TDM Package Core Assumptions

- Existing TDM programs will continue (public & private sector).
- Existing public TDM programs will be expanded to meet new market demand.
- Implementation of trip reduction targets will be supported by new interlocal or sub-regional agreements.
- Strategies are flexible and are monitored and adjusted as needed over time (includes tracking trends for Internet, e-commerce).
- Funding is provided for demonstration projects, plus some ongoing funding for new TDM strategies found effective.

Focus of TDM Package

SOV and other trip reduction through the use of:

- Incentives
- Increasing access to alternative modes
- Public information, education, and promotion
- Land use strategies

Strategies in the TDM Package

VANPOOLING

- Maximize vanpooling in the corridor (minimum of a five-fold increase)
  - Intensive marketing of vanpooling, including start-up subsidies
  - Use of new "value-added" incentives (e.g., frequent flyer miles for vanpoolers)
  - Acquisition of vans
  - 25% fare subsidy
  - Provide sufficient infrastructure (e.g., small park-and-ride lots)
  - Owner-operated vanpool promotion

PUBLIC INFORMATION, EDUCATION & PROMOTION PROGRAMS

- Establish ongoing public education and awareness program specific to the corridor (focus on issues and transportation alternatives).
- Provide traveler information system(s), including interactive ridematch and transit information.

- Provide personalized trip planning assistance, including for transit.

EMPLOYER-BASED PROGRAMS

- Increase work choices such as:
  - Telecommuting, flextime, compressed work schedules, multiple shifts
  - Proximate commuting (assigning employees to work sites close to home)
  - Incentives to employers to offer work choices (e.g., tax credits)
- For current Commute Trip Reduction Program – new incentives and resources to help CTR-affected employers obtain CTR goals (e.g., grants, tax credits, staff support)
- Expanded CTR-like program aimed at smaller employers plus those larger ones not affected by CTR laws (non-regulatory, voluntary based)
- Support development and core operations of transportation management associations (TMAs)
- Parking cash-out program incentives

LAND USE AS TDM

Compact, mixed-use, non-motorized and transit friendly (re)development in target areas (urban centers, suburban clusters, key arterials, transit station areas, transit centers, park-and-ride lots)

- Transit-oriented development (TOD)
- Code changes, streamlining processes, local connectivity retrofitting projects to support (re)development
- Programs (code assistance, design review support) to help jurisdictions and developers implement compact (re)development
- New parking management programs

OTHER MISCELLANEOUS TDM PROGRAMS

Innovative transit and vanpool fare media, incentives, demonstrations, matching funds, etc. [e.g., area-wide "Smart Card" (FlexPass) programs for Eastgate, downtown Bellevue, north Renton industrial area, Bothell business parks, Redmond, downtown Kirkland, Tukwila]

- Non-commute trips TDM programs (research and demonstrations)
- Other miscellaneous incentives (local and state tax credit programs, developer incentives)

Expanded TDM Package

Includes consideration of the range of regional pricing strategies being evaluated by the PSRC. These strategies include the following:

- Region-wide congestion pricing (RCP);
- Fuel taxes (revenue = RCP);
- Fuel taxes (revenue = 50% RCP);
- Mileage charge (revenue = RCP);
- Parking charges;
- High occupancy toll lanes.

Pricing strategies are examined at the regional level in the context of the I-405 corridor.

2. TRANSIT EXPANSION WITHIN STUDY AREA

No Action Alternative: Transit service levels would be increased by 20 percent compared to the current King County 6-year plan, assumed to be in place by 2007.

Alternatives 1, 2, 3, and the Preferred Alternative: Transit service levels would be increased by up to 100 percent compared to the current King County 6-year plan, assumed to be in place by 2007. Transit service coverage and design would also be revised to more closely match travel patterns within the study area. These revisions could include more center-to-center movements, connections between neighborhoods and centers, and development of an appropriate 'grid' transit system within the study area.

Alternative 4: Transit service levels would be increased by 50 percent compared to the current King County 6-year plan, assumed to be in place by 2007.

3. HIGH-CAPACITY TRANSIT (HCT)

Include a high-capacity transit solution for the I-405 corridor. The exact technology of this solution would be determined in later studies, but could include bus rapid transit, monorail, or similar mode that could operate at speeds of up to 60 - 70 mph. The HCT alignment would generally follow the I-405, SR 520, and I-90 freeway corridors in existing freeway, arterial, or railroad right-of-way. The key characteristic of this solution would be that it would have a dedicated alignment, removing it from congestion-induced delays. Bus service would be reconfigured to provide maximum accessibility to the HCT system.

Alternatives 1 and 2 assume a fixed-guideway rail system within the corridor. Alternative 1 also includes a transit variation that would provide for a commuter rail operation among the BNSF from Tukwila north to Kirkland. Alternative 3 and the Preferred Alternative assume a bus rapid transit (BRT) concept, building on the existing freeway HOV system. Alternative 4 has no HCT system.

4. ADD ARTERIAL HOV AND TRANSIT PRIORITY

Create HOV lanes, intersection queue jumps, and signals that provide priority to HOVs and transit on major arterials in the study area.

5. HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS

Complete the series of ramps connecting arterials and freeways directly to HOV lanes on I-405. This allows carpools, vanpools, and buses to use the HOV lanes without weaving across other traffic. HOV direct-access ramps have already been designed by Sound Transit in downtown Bellevue and Kirkland, and design studies are starting for HOV ramps in downtown Renton.

6. ADD PARK-AND-RIDE CAPACITY TO MEET DEMAND

Provide additional park-and ride capacity at existing locations and create selected new lots based on forecasted transit and carpool demand. A total of 4,500 to 5,000 additional spaces were identified throughout the corridor.

7. ADD TRANSIT CENTER CAPACITY TO MEET DEMAND

Expand existing transit centers and create new transit centers to accommodate increased transit service. Alternatives 1, 2, and 3, and the Preferred Alternative require transit center capacity to accommodate a significant increase in transit service at designated HCT stations and at feeder bus connections.

8. BASIC I-405 IMPROVEMENTS

Fixes existing bottlenecks and locations with safety deficiencies along I-405.

9. ADD 1 GENERAL-PURPOSE LANE EACH DIRECTION ON I-405

Add up to 1 general-purpose lane to I-405 through widening of the existing freeway.

10. ADD 2 GENERAL-PURPOSE LANES EACH DIRECTION ON I-405

Add up to 2 general-purpose lanes to I-405 through widening of the existing freeway. A design option is to create collector-distributor lanes in selected corridor segments (See Element 11).

11. PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405

Add collector-distributor lanes and auxiliary lanes to address capacity and safety needs at selected locations in the corridor.

This is being considered as a design option to handle the addition of one or two general purpose lanes in each direction along I-405 in certain sections

12. ADD TWO EXPRESS LANES EACH DIRECTION ON I-405

Create a four-lane express facility designed to operate with limited interchanges along the length of I-405. The express lanes would be physically separated from the rest of I-405 through the use of barriers. Certain segments could operate within the median of I-405, while other segments would need to be elevated, in tunnel, or on separate alignments.

The express lanes could operate as a general-purpose facility or as a managed facility, such as a 'high-occupancy toll' (i.e., HOT) lane. Certain users could be allowed to use the express lanes for free, while other users could be allowed to "buy in" to available capacity. The capacity would be priced depending upon demand.

13. WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT (STUDY AREA BOUNDARY)

SR 167 would be widened by one lane in each direction to accommodate additional demands due to growing demands and the effects of improvements at the I-405/SR 167 interchange. The widening in Alternatives 3 and 4 was assumed to extend at least to the study area boundary in Kent. The Preferred Alternative considered the potential to add a total of two lanes in each direction to SR 167 from I-405 to the 180th interchange; widening further to the south would be subject to a future SR 167 study. This element does not presume that SR 167 would be redesignated as I-405, although each of these improvements would be compatible with such a redesignation if it occurs.

14. SR 167/I-405 INTERCHANGE IMPROVEMENTS

The SR 167 interchange would be redesigned to provide directional ramps for major traffic movements.

15. IMPROVE CONNECTING FREEWAY CAPACITY TO I-405

Enhance the capacity of connecting freeways by one lane in each direction (for a distance of approximately ½ to 1 mile on both sides of I-405) to avoid bottlenecks at connections to I-405.

16. IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS

Implement several improvements called for in local agency plans and the Eastside Transportation Program (ETP). The ETP has been an ongoing process by regional, county, and local governments to coordinate transportation planning and funding in East King County. Many of the ETP projects have already been examined in detail by the agencies involved and have been determined to be effective in addressing a variety of transportation Issues.

17. EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS

Expand arterial capacity to provide connected north-south travel.

18. UPGRADE ARTERIAL CONNECTIONS TO I-405

Provides for upgrading arterial connections to I-405. These projects are intended to improve operations at on- and off-ramps as well as on the arterials. Improvements included an additional lane in each direction or intersection improvements in the vicinity of I-405.

19. CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS

Non-motorized improvements include two types of treatments: (1) crossings of I-405 and (2) regional trail connections. This could include connections to transit centers.

20. I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM (ITS) ENHANCEMENTS

Provides ITS enhancements to facilitate more reliable traffic flow.

21. I-405 CORRIDOR FREIGHT ENHANCEMENTS

Provides improvements specific to freight movements. Note that freight will benefit as well from general-purpose traffic expansion described in other elements.

APPENDIX B

I-405 Corridor Program
EIS Alternatives Project Matrix

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APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					No Action	HCT/TDM	Mixed Mode with HCT/Transit Emphasis	Mixed Mode	General Capacity	Preferred
1.	**TRANSPORTATION DEMAND MANAGEMENT (TDM)**									
		Various	TDM-1	TDM Package		✓	✓	✓	✓	✓
			TDM-2	Expanded TDM Package- Regional Congestion Pricing		✓				✓
2.	**TRANSIT EXPANSION WITHIN STUDY AREA**									
		Various	TS-0	Twenty percent more service than in the proposed 6-year plans for sound Transit, METRO and Community Transit	✓					
		Various	TS-1	Seventy percent more service assumed in the current 6-year plans for Sound Transit, METRO and Community Transit						✓
		Various	TS-1A	New Bus Base - Green River Valley		✓	✓	✓	✓	
		Various	TS-2	Twice the service in the proposed 6-year plans for Sound Transit, METRO and Community Transit		✓	✓	✓		
		Various	TS-3	Fifty-percent more service assumed in the current 6-year plan for Sound Transit, Metro, and Community Transit.					✓	
3.	**HIGH CAPACITY TRANSIT**									
	BUS RAPID TRANSIT STATIONS									
		Sea-Tac Airport	BRT-1	Sea-Tac Airport Transportation Center				✓		✓
		Tukwila	BRT-2	Tukwila (Commuter Rail Station)				✓		✓
		Renton	BRT-3	Renton Transit Center				✓		✓
		Renton	BRT-4	Port Quendall				✓		✓
		Newport	BRT-5	Newport Hills				✓		✓
		Bellevue	BRT-6	Bellevue Transit Center				✓		✓
		Kirkland	BRT-7	Central Kirkland (NE 85th Street)				✓		✓
		Kirkland	BRT-8	Totem Lake				✓		✓
		Bothell	BRT-9	Bothell/UW Campus				✓		✓
		Bothell	BRT-10	Canyon Park				✓		✓
		Lynnwood	BRT-11	Lynnwood Transit Center				✓		✓
	High Capacity Transit (Physically Separated, Fixed Guideway HCT)									
		Tuk. & Renton	T.HCT-1	HCT- SeaTac to Renton CBD		✓	✓			
		Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)		✓	✓			
		Ren< New & Bel	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria		✓	✓			
		Bell & Issa	T.HCT-4	HCT - Factoria To Issaquah		✓	✓			
		Bellevue	T.HCT-5	HCT Factoria to Downtown Bellevue		✓	✓			
		Bell & Red	T.HCT-6	HCT - Bellevue to Redmond		✓	✓			
		Bell & Kirk	T.HCT-7	HCT- Bellevue to Totem Lake		✓	✓			
		Kirk & King Co	T.HCT-8	HCT - Totem Lake to Bothell		✓	✓			
		Various	T.HCT-9	HCT - Bothell to Lynnwood		✓	✓			
						✓	✓			
	High Capacity Transit (Bus Rapid Transit (BRT) operating improved access HOV lanes on the existing freeway system)									
		Tuk. & Renton	T.HCT-1	HCT- SeaTac to Renton CBD				✓		
		Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)				✓		
		Ren< New & Bel	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria				✓		
		Bell & Issa	T.HCT-4	HCT - Factoria To Issaquah				✓		
		Bellevue	T.HCT-5	HCT Factoria to Downtown Bellevue				✓		
		Bell & Red	T.HCT-6	HCT - Bellevue to Redmond				✓		
		Bell & Kirk	T.HCT-7	HCT- Bellevue to Totem Lake				✓		
		Kirk & King Co	T.HCT-8	HCT - Totem Lake to Bothell				✓		
		Various	T.HCT-9	HCT - Bothell to Lynnwood				✓		
								✓		
	High Capacity Transit Stations									
		Sea-Tac	HCT.TS-1	Sea-Tac (Outside of Study Area)						
		Tukwila	HCT.TS-2	Southcenter		✓	✓			
		Tukwila & Renton	HCT.TS-3	Tukwila (Longacres)		✓	✓			
		Renton	HCT.TS-4	Downtown Renton		✓	✓			
		Renton	HCT.TS-5	North Renton		✓	✓			

∗ ***Evaluated within another project.***

∗ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Renton	HCT.TS-6	Port Quendall		✓	✓			
		Bellevue	HCT.TS-7	Factoria		✓	✓			
		Bellevue	HCT.TS-8	Bellevue Transit Center		✓	✓			
		Bellevue	HCT.TS-9	Bellevue Library		✓	✓			
		Bell & Kirk	HCT.TS-10	SR 520/Northup Way		✓	✓			
		Kirkland	HCT.TS-11	Downtown Kirkland (NE 85th Street)		✓	✓			
		Kirkland	HCT.TS-12	Totem Lake		✓	✓			
		Woodinville	HCT.TS-13	NE 145th Street		✓	✓			
		Woodinville	HCT.TS-14	Woodinville		✓	✓			
		Bothell	HCT.TS-15	NE 195th		✓	✓			
		Bothell	HCT.TS-16	Canyon Park		✓	✓			
		Sno County	HCT.TS-17	164th Street AW (AshWay)		✓	✓			
		Bellevue	HCT.TS-18	Eastgate		✓	✓			
		King County	HCT.TS-19	Lakemont		✓	✓			
		Issaquah	HCT.TS-20	Issaquah 9Outside of Study area)						
		Bellevue	HCT.TS-21	132nd Avenue NE		✓	✓			
		Bellevue	HCT.TS-22	148th Avenue NE		✓	✓			
		Redmond	HCT.TS-23	Overlake (NE 40th Street)		✓	✓			
		Redmond	HCT.TS-24	Redmond Town Center		✓	✓			
		Redmond	HCT.TS-25	Bear Creek		✓	✓			
		Mercer Island	HCT.TS-26	Mercer Island		✓	✓			
4.		**ADD ARTERIAL HOV AND TRANSIT PRIORITY**								
		Bellevue	R.HOV-36	Coal Creek Pkwy from I-405 to Forest Drive		✓	✓	✓		
		Bellevue	R.HOV-36	Coal Creek Pkwy from I-405 to Factoria Blvd						✓
		Bellevue	R.HOV-37	NE 8th Street from I-405 to 120th Ave NE		✓	✓	✓		✓
		Kirk, Redmond	R.HOV-38	NE 85th St from Kirkland Way to 148th Ave NE Vicinity		✓	✓	✓		✓
		Kirkland	R.HOV-39	NE 116th from 115th Ave NE to 124th Ave NE		✓	✓	✓		✓
		Kirkland	R.HOV-40	NE 124th from 113th Ave NE to 132 Ave NE		✓	✓	✓		
		Kirkland	R.HOV-40	NE 124th from 113th Ave NE to 124th Ave NE						✓
		Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th St to SR 524		✓	✓	✓		
		Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th through I-405 interchange						✓
		Renton	R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment		✓	✓	✓		✓
		Renton	R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave to SR 167		✓	✓	✓		✓
		Redmond	R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct SB HOV lane		✓	✓	✓		✓
		Renton, King Co	R.HOV-48	SW 43 St from SR 167 to 140 Ave SE		✓	✓	✓		✓
		Renton	R.HOV-49	Logan Ave N/N 6 St from S 3 St to Park Dr, Transit Signal Priority		✓	✓	✓		✓
		Renton	R.HOV-51	Park Dr/Sunset Blvd from Garden Ave to Duvall Ave NE, Que Bypass'		✓	✓	✓		✓
		Kenmore	R.HOV-53 & R.PA-11	68 Ave NE (Simonds Rd to SR 522) - Construct NB HOV lane		✓	✓	✓		
		Redmond	R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)		✓	✓	✓		
		Kirkland, Bellevue	R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes		✓	✓	✓		✓
		Kirkland	R.HOV-57	NE 68 St/NE 72 Pl (I-405 Vicinity) Que Bypass'		✓	✓	✓		✓
		Bellevue	R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity		✓	✓	✓		✓
5.		**HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS**								
		Bellevue	HOV-01	I-405 at NE 4th/6th/8th (Bellevue) / Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges	✓	✓	✓	✓	✓	✓
		Bellevue	HOV-02	I-90 (Eastgate) / New I-90 HOV direct access connection to P&R	✓	✓	✓	✓	✓	✓
		WSDOT	HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct NB and SB HOV lanes total 6 lanes	✓	✓	✓	✓	✓	✓
		ST	HOV-102, R.HOV-58 & R.PA-1	Woodinville Arterial Enhancements/HOV arterial enhancements	✓	✓	✓	✓	✓	✓
		Renton	R.HOV-32	Between Sunset and SR-900 /Park Ave interchange in Renton	✓	✓	✓	✓	✓	✓
		Bothell	R.HOV-62	Vicinity of NE 195th (Bothell Campus)	✓	✓	✓	✓	✓	✓
		Bothell	R.HOV-63	Vicinity of SR 527	✓	✓	✓	✓	✓	✓
		ST	R.HOV-66	I-405 at NE 128th St/HOV Direct Access Improvements	✓	✓	✓	✓	✓	✓
		Tukwila	R.HOV-25	SR 5 I/C @ Tukwila Fwy to Fwy HOV ramps,			✓	✓		✓

∗ ***Evaluated within another project.***

∗ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Renton	R.HOV-26	SR 167 I/C Fwy to Fwy HOV ramps,			✓	✓	✓	✓
		Bellevue	R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps,			✓	✓	✓	✓
		Bellevue	R.HOV-28	SR 520 Fwy to Fwy HOV ramps,			✓	✓	✓	✓
		Bothell	R.HOV-29	SR 522 Fwy to Fwy HOV Ramps			✓	✓	✓	✓
		Sno. Co.	R.HOV-30	SR 5 I/C @ Swamp Creek Fwy HOV ramps.			✓	✓	✓	✓
		Newcastle	R.HOV-65	112th St SE (In-Line Station)			✓			✓
		SR 181	R.HOV-102	SR 181 (Commuter Rail Access)						✓
		ST	HOV-101	I-405 @ Lind/HOV direct access improvements.				✓		
		Renton	R.HOV-33 & R.IC-12	NE 44th I/C - HOV Direct Access and Arterial Improvements (assumes Port Quendall) (Remove from NA))		✓	✓	✓	✓	✓
		Kirkland	R.HOV-61	NE 85th				✓		✓
6.		**ADD PARK & RIDE CAPACITY TO MEET DEMAND**								
		Renton	T.PR-3	Renton Highlands	✓	✓	✓	✓	✓	
		Tukwila & Ren	T.PR-6	Tukwila Commuter Rail (Longacres)	✓	✓	✓	✓	✓	
		K C	T.PR-8	SR 169 and 140th Place SE		✓	✓	✓		
		K C	T.PR-9	Petrovitsky Rd and 157th Ave SE		✓	✓	✓		
		K C	T.PR-10	140th Ave SE and SE 192nd		✓	✓	✓		
		K C	T.PR-11	SR 515 and SE 208th		✓	✓	✓		
		Kent & Renton	T.PR-12	SR 167 and SW 43rd		✓	✓	✓		
		Kent & Renton	T.PR-13	SR 167 and 84th Ave		✓	✓	✓		
		Redmond	T.PR-17	Willows Rd @ NE 100th		✓	✓	✓		
		Redmond	T.PR-18	SR 202 @ NE 100th		✓	✓	✓		
		Bell & Kirk	T.PR-20	South Kirkland	✓	✓	✓	✓	✓	
		Redmond	T.PR-21	Overlake	✓	✓	✓	✓	✓	
		Bellevue	T.PR-22	South Bellevue	✓	✓	✓	✓	✓	
		Bellevue	T.PR-23	Newport (112th Ave. SE)	✓	✓	✓	✓	✓	
		KC	T.PR-24	NE 160th/Brickyard Rd	✓	✓	✓	✓	✓	
		Bothell	T.PR-25	Canyon Park (SR 405 and SR 527)	✓	✓	✓	✓	✓	
		KC	T.PR-26	SR 202 @ NE 145th		✓	✓	✓		
		Tukwila	T.PR-30	Tukwila	✓	✓	✓	✓	✓	
		Kirkland	T.PR-31	Houghton	✓	✓	✓	✓	✓	
		Kirkland	T.PR-32	Kingsgate	✓	✓	✓	✓	✓	
		Medina	T.PR-33	Evergreen Point	✓	✓	✓	✓	✓	
		Bellevue	T.PR-34	Wilburton	✓	✓	✓	✓	✓	
		King County	T.PR-35	Lakemont	✓	✓	✓	✓	✓	
		Redmond	T.PR-36	Rendmond	✓	✓	✓	✓	✓	
		Redmond	T.PR-37	Bear Creek	✓	✓	✓	✓	✓	
		Bothell	T.PR-38	Bothell	✓	✓	✓	✓	✓	
		Kenmore	T.PR-39	Northshore	✓	✓	✓	✓	✓	
		Kenmore	T.PR-40	Kenmore	✓	✓	✓	✓	✓	
		Woodinville	T.PR-41	Woodinville	✓	✓	✓	✓	✓	
		Mercer Island	T.PR-42	Mercer Island	✓	✓	✓	✓	✓	
		Bellevue	T.PR-43	Eastgate	✓	✓	✓	✓	✓	
		SE Snohomish	T.PR-44	Southeast Snohomish County (inside Study Area) (+800 spaces)						✓
		Bothell, Kenmore, Woodinville	T.PR-45	Bothell, Kenmore, Woodinville & vicinity (+300 spaces)						✓
		Kirkland & vicinity	T.PR-46	Kirkland & vicinity (+300 spaces)						✓
		Redmond & vicinity	T.PR-47	Redmond & vicinity (+500 spaces)						✓
		Mercer Island	T.PR-48	Mercer Island (+300 spaces)						✓
		Bellevue & vicinity	T.PR-49	Bellevue & vicinity (+1200 spaces)						✓
		Renton & vicinity	T.PR-50	Renton & vicinity (+200 spaces)						✓
		Tukwila & vicinity	T.PR-51	Tukwila & vicinity (+700 spaces)						✓
		Kent & vicinity	T.PR-52	Kent & vicinity (inside study area) (=700 spaces)						✓

Placeholder- 4500 new spaces analyzed and costed

Total of 5,000 spaces- to be verified by transit forecassts

∗ ***Evaluated within another project.***

∗ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
7.	**ADD TRANSIT CENTER CAPACITY TO MEET DEMAND**									
	Renton		T.TC-6	Downtown Renton	✓	✓	✓	✓	✓	✓
	Bellevue		T.TC-8	Downtown Bellevue	✓	✓	✓	✓	✓	✓
	Redmond		T.TC-9	Overlake	✓	✓	✓	✓	✓	✓
	Kirkland		T.TC-12	Downtown Kirkland	✓	✓	✓	✓	✓	✓
	Kirkland		T.TC-14	Totem Lake	✓	✓	✓	✓	✓	✓
	Lynnwood		T.TC-18	Lynnwood						✓
	Woodinville		T.TC-19	Downtown Woodinville						✓
	Newcastle		T.TC-20	Downtown Newcastle						✓
	Tukwila		T.TC-21	Tukwila						✓
	Bothell		T.TC-22	Canyon Park						✓
8.	**BASIC I-405 IMPROVEMENTS**									
	Renton		R.BI-1 & R.FR-10	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167		✓	✓	✓	✓	✓
	Kirkland		R.BI-2	Continue NB climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th		✓	✓		✓	
	Kirkland		R.BI-3	SB auxiliary Lane NE 124th to NE 85th		✓	✓		✓	
	Bellevue		R.BI-4	I-90 / Coal Creek Interchange		✓	✓	✓	✓	✓
	Both,King Co,Kirk		R.BI-5	SB SR 522 to 124th continue climbing lane as an auxiliary lane (SB SR 522 to 160th climbing lane)		✓	✓		✓	✓
	Bothell		R.BI-6	NB auxiliary lane SR 522 to SR 527		✓	✓		✓	
	Renton		R.BI-7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th (OPTION)		✓	✓		✓	✓
	Bellevue		R.BI-8	I-90 to Bellevue SB HOV direct connection to I-90 west		✓	✓		✓	
	Bellevue		R.BI-9	NB auxiliary lane I-90 to NE 8th		✓	✓		✓	
	Bellevue		R.BI-10	Increase SR 405 to Eastbound SR 520 Ramp capacity		✓	✓		✓	✓ *
	Renton		R.BI-14	NB Auxilliary Lane I-5 to SR 167		✓	✓		✓	
	Various		R.FR.24	Improve interchange geometrics at all major truck routes (WB-20 Design Criteria) (No cost included)		✓	✓	✓	✓	✓
	Committed Freeway Projects									
	WSDOT		R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.	✓	✓	✓	✓	✓	✓
9.	**ONE ADDITIONAL GP OR AUXILIARY LANE EACH DIRECTION ON I-405**									
	Tukwila,Renton		R.TC-18	One additional GP lanes in each direction - SR 5 Tukwila to SR 167			✓		✓	
	Renton		R.TC-10	One additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C			✓		✓	
	Renton, Nwcas,Bel		R.TC-11	One additional GP lanes in each direction - SR 900/North Renton I/C to SR 90			✓		✓	
	Bellevue		R.TC-12	One additional GP lanes in each direction - SR 90 To SR 520			✓		✓	
	Bellevue,Kirkland		R.TC-13	One additional GP lanes in each direction - SR 520 to NE 70th			✓		✓	
	Kirkland		R.TC-14	One additional GP lanes in each direction - NE 70th to NE 124th			✓		✓	
	Kirk,K C,Both		R.TC-15	One additional GP lanes in each direction - NE 124th SR 522			✓		✓	
	Bothell,Sno Co		R.TC-16	One additional GP lanes in each direction - SR 522 to SR 527			✓		✓	
	Sno Co		R.TC-17	One additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek			✓		✓	
10.	**ADD 2 GENERAL PURPOSE LANES EACH DIRECTION ON I-405**									
	Tukwila,Renton		R.TC-1	Two additional GP lanes in each direction - SR 5 Tukwila to SR 167				✓		✓
	Renton		R.TC-2	Two additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C				✓		✓
	Renton, Nwcas,Bel		R.TC-3	Two additional GP lanes in each direction - SR 900/North Renton I/C to SR 90				✓		✓
	Bellevue		R.TC-4	Two additional GP lanes in each direction - SR 90 To SR 520				✓		✓
	Bellevue,Kirkland		R.TC-5	Two additional GP lanes in each direction - SR 520 to NE 70th				✓		
	Bellevue,Kirkland		R.TC-5	Two additional GP lanes SB, One additional GP lane NB - SR 520 to NE 70th						✓
	Kirkland		R.TC-6	Two additional GP lanes in each direction - NE 70th to NE 124th				✓		✓
	Kirk,K C,Both		R.TC-7	Two additional GP lanes in each direction - NE 124th SR 522				✓		✓
	Bothell,Sno Co		R.TC-8	Two additional GP lanes in each direction - SR 522 to SR 527				✓		✓
	Sno Co		R.TC-9	Two additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek				✓		✓
	Various		R.ML-1	Managed Lane Buffer Option (4 feet) - I-5 Tukwila to I-5 Swamp Creek						✓
11.	**PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405**									
	Renton		R.CD-1	SR-167, SR-169, Sunset and SR 900/North Renton; Note: Impacts and costs included as part				✓ *		✓ *

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* ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Bellevue	R.CD-2	Coal Creek, SR 90, SE 8th, NE 4th, NE 8th and SR 520; of Element 10.				✓ ✻		✓ ✻
		Kirkland	R.CD-3	NE 70th and NE 85th;				✓ ✻		✓ ✻
		Kirkland	R.CD-4	NE 116th and NE 132nd;				✓ ✻		✓ ✻
		Bothell, King Co	R.CD-5	NE 160th, SR-522 and SR 527				✓ ✻		✓ ✻
		Newcastle	R.CD-6 & R.BI-7	3rd Northbound Lane - NE 30th St to NE 44th St						✓
		Bellevue	R.CD-7 & R.BI-7	3rd Northbound and Southbound Lanes - NE 44th ST to Coal Creek I/C						✓
12.	**EXPRESS LANES - 2 LANES EACH DIRECTION ON I-405**									
		Tukwila,Renton	R.TC-20 + R.TC-29a	Add Express Lanes - SR 5 Tukwila to SR 167					✓	
		Renton	R.TC-21	Add Express Lanes - SR 167 to SR 900/North Renton I/C					✓	
		Renton, Nwcas,Bel	R.TC-22 + R.TC-33	Add Express Lanes - SR 900/North Renton I/C to SR 90					✓	
		Bellevue	R.TC-23	Add Express Lanes - SR 90 To SR 520					✓	
		Bellevue,Kirkland	R.TC-24 + R.TC-32	Add Express Lanes - SR 520 to NE 70th					✓	
		Kirkland	R.TC-25	Add Express Lanes - NE 70th to NE 124th					✓	
		Kirk,K C,Both	R.TC-26 + R.TC-31	Add Express Lanes - NE 124th SR 522					✓	
		Bothell,Sno Co	R.TC-27	Add Express Lanes - SR 522 to SR 527					✓	
		Sno Co	R.TC-29 + R.TC-30	Add Express Lanes - SR 527 to SR 5 Swamp Creek					✓	
		Renton	R.TC-28	Add Express Lanes - SR 167 north of 180th up to I-405					✓	
	EXPRESS LANES - ACCESS LOCATIONS									
		Tukwila,Renton	R.TC-29a + R.TC-20	Southern end to Express Lanes - Between SR 181 and SR 167					✓ ✻	
		Bothell	R.TC-30 + R.TC-29	Northern end to Express Lanes - Between SR 527 and I-5					✓ ✻	
		Renton, Nwcas,Bel	R.TC-31 + R.TC-26	Slip Ramp - South of NE 160th Street					✓ ✻	
		Bellevue	R.TC-32 + R.TC-24	Slip Ramp - South of NE 70th Street					✓ ✻	
		Bellevue,Kirkland	R.TC-33 + R.TC-22	Slip Ramp - South of Coal Creek Parkway					✓ ✻	
		Kirkland	R.TC-34	Interchange access location - SR 167					✓	
13.	**WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT**									
		Renton, Kent	R.CF-8	SR 167 I-405 to Study Area Boundary (2 lanes to 180th only; No added lanes south of 180th)			✓	✓	✓	✓
14.	**SR 167/ I-405 INTERCHANGE IMPROVEMENTS**									
		Renton	R.FR-10 & R.BI-1	SR 167/I-405 Interchange Add Directional Ramps for major movements			✓ ✻	✓ ✻	✓ ✻	✓ ✻
15.	**IMPROVE CONNECTING FREEWAY CAPACITY TO I-405**									
		Tuikwila	R.CF-1	SR 518 I-405 to SR 99/Airport Access			✓	✓	✓	✓
		Bellevue	R.CF-3	I-90 South Bellevue to Eastgate			✓	✓	✓	✓
		Bellevue	R.CF-4	SR 520 Bellevue Way to 148th (to 124th, tie to TransLake)					✓	✓ ✻
		Bothell, Woodin	R.CF-5	SR 522 Bothell to NE 195th			✓	✓	✓	✓
		Sno Co, Lynnwood	R.CF-6	SR 525 I-405 to SR 99			✓	✓	✓	✓
		Tukwila	R.CF-9	I-5 at Tukwila			✓	✓	✓	✓
		Lynnwood	R.CF-10	I-5 at Swamp Creek - 44th to 155th			✓	✓	✓	✓
16.	**IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS** (Note: ID numbers are same as ETP ID's)									
		Bothell, Snohomish C	R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection	✓	✓	✓	✓	✓	✓
		Bellevue	R-08	NE 29th Pl (148th Ave NE to NE 24th St)/Construct new 2-lane road	✓	✓	✓	✓	✓	✓
		Snohomish Co.	R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	✓	✓	✓	✓	✓	✓
		Kirkland	R-21	NE 120 St (Slater Ave to 124 Ave NE)--- Construct new 3-lane roadway with ped/bike facilities	✓			✓		✓
		Redmond/ WSDOT	R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/ped facilities	✓	✓	✓	✓	✓	✓
		Redmond	R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	✓	✓	✓	✓	✓	✓
		Redmond	R-28	West Lake Sammamish Parkway (Leary Way to Bel-Red Rd)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
		Renton	R-36	Oakesdale Ave SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	✓	✓	✓	✓	✓	✓
		KCDOT	R-39 & R.AC-2	140 Ave SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.	✓	✓	✓	✓	✓	✓

✻ ***Evaluated within another project.***

✻ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		KCDOT	R-40 & R.IC-24	Juanita-Woodinville Way (NE 145 St to 112th Ave NE) Widen to 5 lanes + CGS, walkway/pathway	✓	✓	✓	✓	✓	✓
		KCDOT	R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	✓	✓	✓	✓	✓	✓
		Woodinville	R-51	Woodinville-Snohomish Rd/140 Ave NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
		Bellevue	R-101	150th Ave SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes	✓	✓	✓	✓	✓	✓
		Redmond	R-111 & R.AC-15	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th	✓	✓	✓	✓	✓	✓
		Snohomish Co.	R-117	39th Ave SE Realignment at SR 524 and York Rd--- Construct 4-way intersection to replace 2 offset intersections	✓	✓	✓	✓	✓	✓
	Planned Arterial Projects									
		Bellevue	R.PA-2	148 Ave SE (SE 24 St to SE 28 St) New SB lane from SE 24 St to the WB I-90 on-ramp (ETP 203)			✓	✓	✓	✓
		Bothell	R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)			✓	✓	✓	✓
		Bothell	R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)			✓	✓	✓	✓
		KCDOT	R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)			✓	✓	✓	✓
		KCDOT	R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)			✓	✓	✓	✓
		KCDOT	R.PA-10	NE 132 St Extension (132 Ave NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)			✓	✓	✓	✓
		Kenmore/KCDOT	R.PA-11 & R.HOV-53	68 Ave NE (Simonds Rd to SR 522)--- Construct NB HOV lane total of 5/6 lanes (ETP 22)			✓ ∗	✓ ∗	✓	
		Kirkland	R.PA-12	124 Ave NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with ped/bike facilities (ETP R-23)			✓	✓	✓	✓
		Kirkland	R.PA-13 & R.IC-26	NE 132 St (100 Ave NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)			✓	✓	✓	✓
		Kirkland	R.PA-14	NE 100 St (117 Ave NE to Slater Ave) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	✓		✓	✓	✓	✓
		Newcastle	R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)			✓	✓	✓	✓
		Redmond	R.PA-16	Redmond 148th Ave NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;			✓	✓	✓	✓
		Redmond	R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ped and CSG; widen Bear Creek Pkwy (ETP R-110)			✓	✓	✓	✓
		Redmond	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)			✓	✓	✓	✓
		Renton	R.PA-19	Duvall Ave NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)			✓	✓	✓	✓
		Renton	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)			✓	✓	✓	✓
		Renton	R.PA-21	Rainier Ave / Grady Way (intersection)-- Grade separation			✓	✓	✓	✓
		Renton	R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)			✓	✓	✓	✓
		Renton	R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)			✓	✓	✓	✓
		Renton/ KCDOT	R.PA-24	Soos Creek Regional Links--- Placeholder for Trans-Valley Study (ETP R-115)			✓	✓	✓	✓
		Woodinville	R.PA-25 & R.AC-30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)			✓	✓	✓	✓
		Woodinville	R.PA-26	SR202 Corridor Package (SR202/148th Ave & SR202/127th Place)--- Intersection improvements (ETP R-54)			✓	✓	✓	✓
		WSDOT	R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)			✓	✓	✓	✓
		WSDOT	R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)			✓	✓	✓	✓
17.	**EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS**									
		King Co	R.AC-2 & R-39	138th Ave - Petrovitsky Rd to SR 169- Add 1 lane. See R-39						
		King Co, Renton	R.AC-3	138th Ave SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St				✓	✓	✓
		Redmond	R.AC-15 & R-111	Willows Rd- NE 90th St to NE 116th St- Add 1 lane each direction					✓ ∗	✓
		King Co,Woodin	R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes				✓	✓	✓
		Woodinville	R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes				✓ ∗	✓ ∗	✓ ∗
		Red,K C,Woodin	R.AC-18 & R.PA-28	SR 202 - NE 90th to NE 145th					✓ ∗	✓
		Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction					✓	
		Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to 228th - Widen by 1 lane each direction						✓
		Both,Woodin	R.AC-30 & R.PA-25	SR 202 connection across SR 522 to 120th				✓ ∗	✓ ∗	✓ ∗
		Tukwila	R.AC-35	SR 181- S 180th to S 200th					✓	
		Tukwila	R.AC-35	SR 181- Strander to S 200th						✓
		Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.					✓ ∗	
		Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Grady Way						✓
		Tukwila	R.AC-37	Southcenter Pky - Tukwila Pky to Strander Blvd					✓	✓

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APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
18.	**UPGRADE ARTERIAL CONNECTIONS TO I-405**									
		Tukwila	R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36			✓	✓	✓	✓
		Renton	R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43			✓ *	✓ *	✓	✓ *
		Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 124th			✓	✓	✓	
		Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 120th						✓
		Kirkland	R.IC-9	NE 116th- 114th Ave NE to 124th Ave NE			✓		✓	✓
		Kirkland	R.IC-10	NE 124th- 113th Ave NE to 124th Ave NE (spot intersection improvements)			✓	✓	✓	
		Kirkland	R.IC-10	SR 527- 228th through I-405 interchanges						✓
		Bothell	R.IC-11 & R.HOV-41	SR 527- 228th to SR 524			✓	✓	✓	✓
		Kirk,King Co	R.IC-14	New half diamond interchange to/from north at NE 132nd St				✓	✓	✓
		Bothell	R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)				✓	✓	✓
		Bothell	R.IC-24 & R-40	NE 160th Street-112th Ave to Juanita/Woodinville Wy See R-40			✓ *	✓ *	✓ *	
		Kirkland	R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave NE				✓*	✓ *	✓ *
19	**CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS**									
	I-405 Crossings									
		Bellevue	NM. CR-1	Lk Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks		✓	✓	✓	✓	✓
		Bothell	NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add ped/bike facility		✓	✓	✓	✓	✓
		Sno. County	NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
		Sno. County	NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
		Renton	NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
		Renton	NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
		Bothell	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add ped/bike overcrossing of I-405		✓	✓	✓	✓	✓
		Bothell	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility		✓	✓	✓	✓	✓
	Pedestrian/Bicycle Connections									
		Bellevue,Kirkland	NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add ped/bike facility.		✓	✓	✓		✓
		Bellevue	NM.P&B-4	Lk Washington Blvd - SR 405 to SE 60th - Add ped/bike facilities		✓	✓	✓		✓
		Bothell	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.		✓	✓	✓		✓
		Bel,Nwcas,Ren	NM.P&B-6	Lk Washington Blvd/112th - SE 60th to May Creek I/C - Add ped/bike facility		✓	✓	✓		✓
		Renton	NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave - Add ped/bike facilities		✓	✓	✓		✓
		Renton	NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities		✓	✓	✓		✓
		Renton	NM.P&B-16	Cedar-Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add ped/bike facilities		✓	✓	✓		✓
		Renton	NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection		✓	✓	✓		✓
		Renton/Tukwila	NM.P&B-18	I-405/1-5 - via or around I-405/I-5 interchange - Add ped/bike facilities		✓	✓	✓	✓	✓
		Tukwila	NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes		✓	✓	✓	✓	✓
20.	**I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM ENHANCEMENTS**									
		Various	ITS-1	Add Camera Coverage to decrease TMC blind spots		✓	✓	✓	✓	✓
		Various	ITS-2	Complete Ramp Metering		✓	✓	✓	✓	✓
		Various	ITS-4	Dual Lane Ramp Metering		✓	✓	✓	✓	✓
		Various	ITS-5	Increased Incident Response		✓	✓	✓	✓	✓
		Various	ITS-6	Traffic adaptive control on arterials		✓	✓	✓	✓	✓
		Various	ITS-7	TIS before all major decision points		✓	✓	✓	✓	✓
		Various	ITS-8	WSDOT support of in-vehicle traffic information		✓	✓	✓	✓	✓
		Various	ITS-9	Arterial camera coverage		✓	✓	✓	✓	✓
21.	**I-405 CORRIDOR FREIGHT ENHANCEMENTS**									
		Renton	R.FR-10 & R.BI-1	Modify SR 167 Interchange for East to South Freight movements (modify for "multiple" movements- don't limit to "east to south")		✓ *	✓ *	✓ *	✓ *	✓ *
		Various	R.FR-11	Improve truck flow with ITS		✓	✓	✓	✓	✓
		Various	R.FR-23	Remote area for overnight freight parking and staging for early morning deliveries		✓	✓	✓	✓	✓
		Various	R.FR-26	Full depth shoulders for truck usage on key freeways and arterials)		✓	✓	✓	✓	✓

* ***Evaluated within another project.***

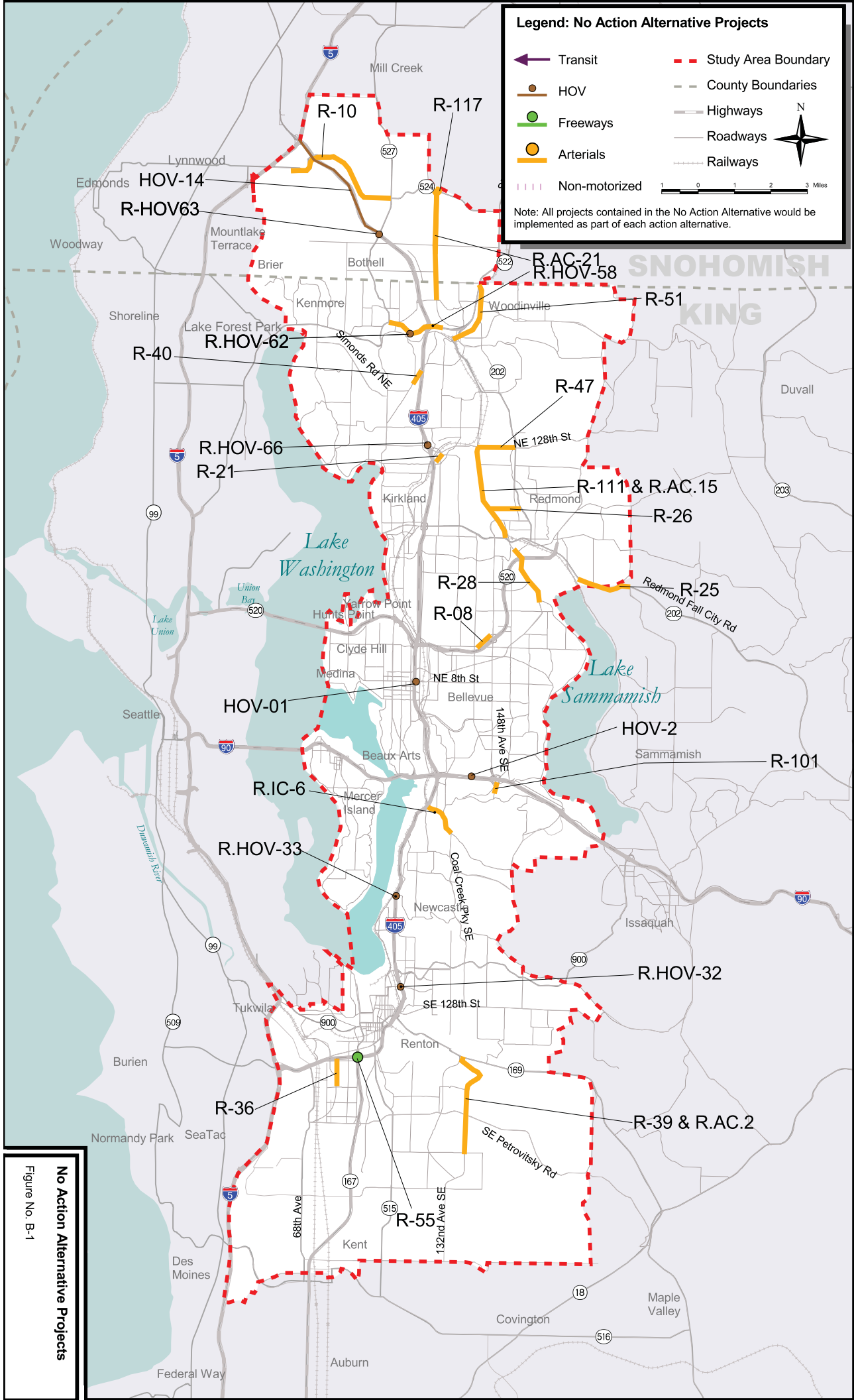
* ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

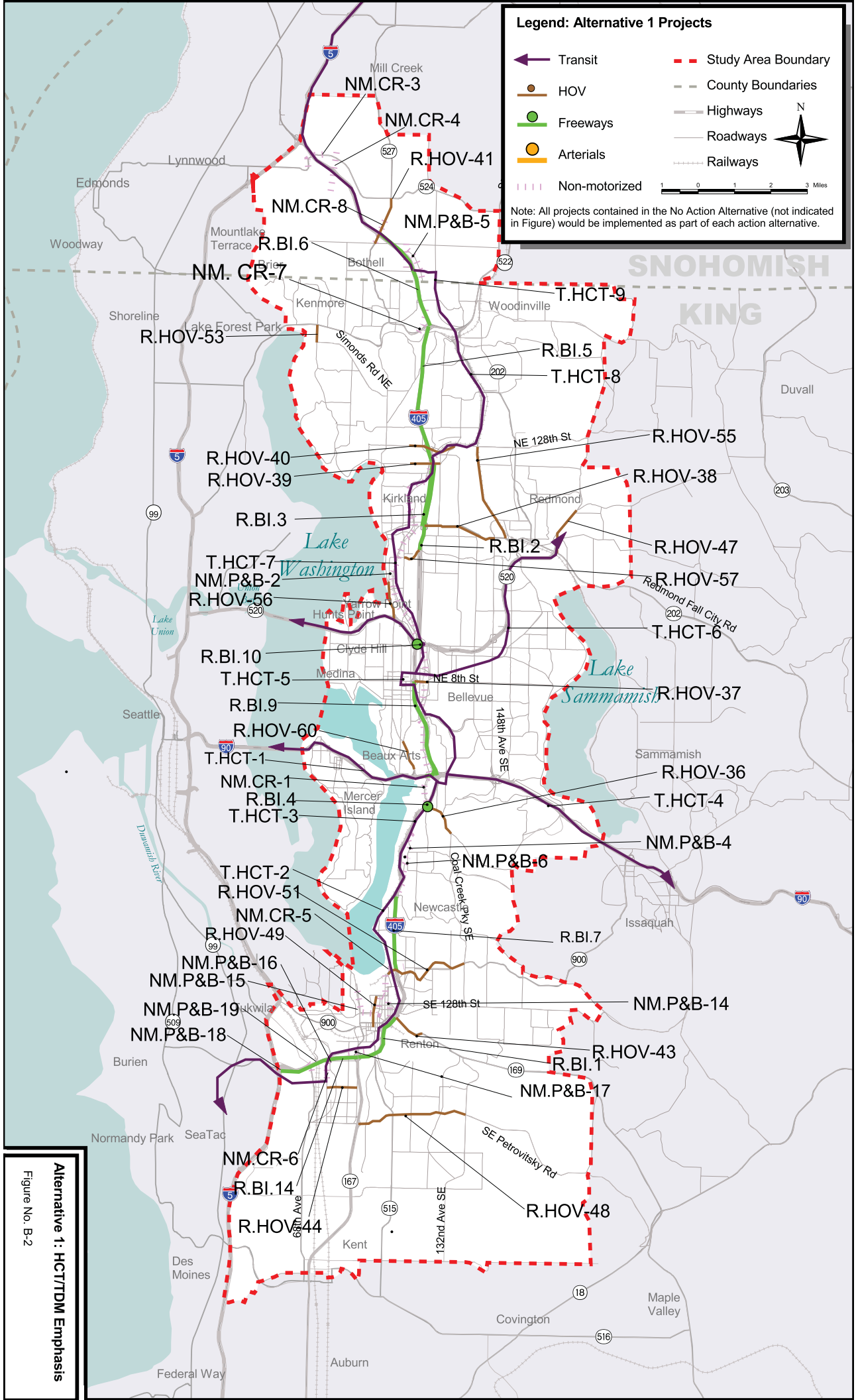
					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					No Action	HCT/TDM	Mixed Mode with HCT/Transit Emphasis	Mixed Mode	General Capacity	Preferred
		Various	R.FR-27	Traveler Information System (TIS) on SR 167 for I-405 "options"		✓	✓	✓	✓	✓
		Various	R.FR-28	TIS on I-5 for SR 18/I-90; and 164th to I-405; and South 200th to I-405		✓	✓	✓	✓	✓
		Various	R.FR-29	Centralized fax/radio for real time congestion reporting for dispatchers and truck drivers. Leverage WSDOT video linkages (e.g., a "T-911" number).		✓	✓	✓	✓	✓
		Various	R.FR-30	Hours of operation and service periods optimized—"JIT" redefined for applicable service sectors (e.g. restaurants)		✓	✓	✓	✓	✓
		Various	R.FR-32	Light cargo delivery using Sound Transit service		✓	✓	✓	✓	✓

∗ ***Evaluated within another project.***
∗ ***Project redefined for the Preferred Alternative***



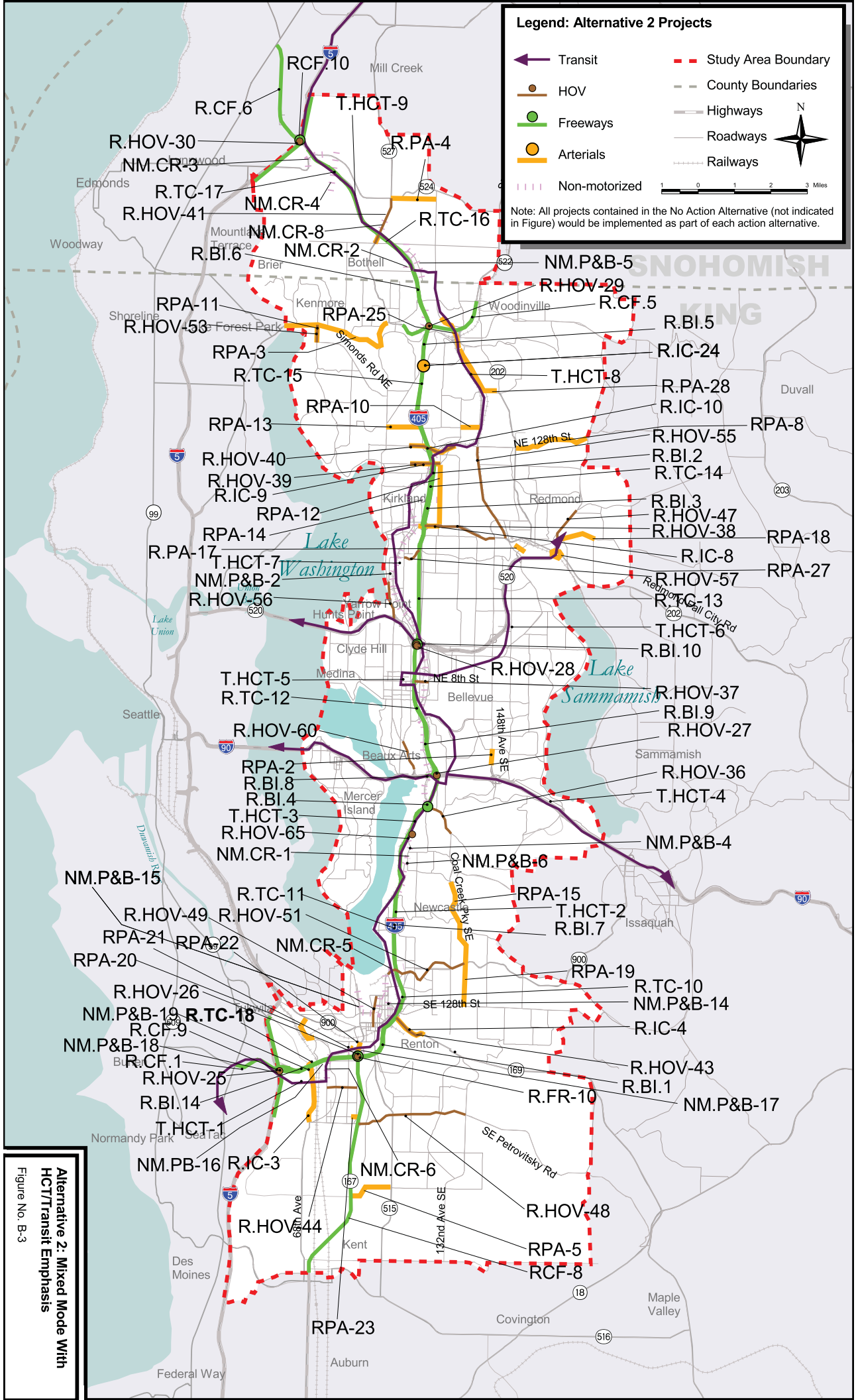
No Action Alternative Projects

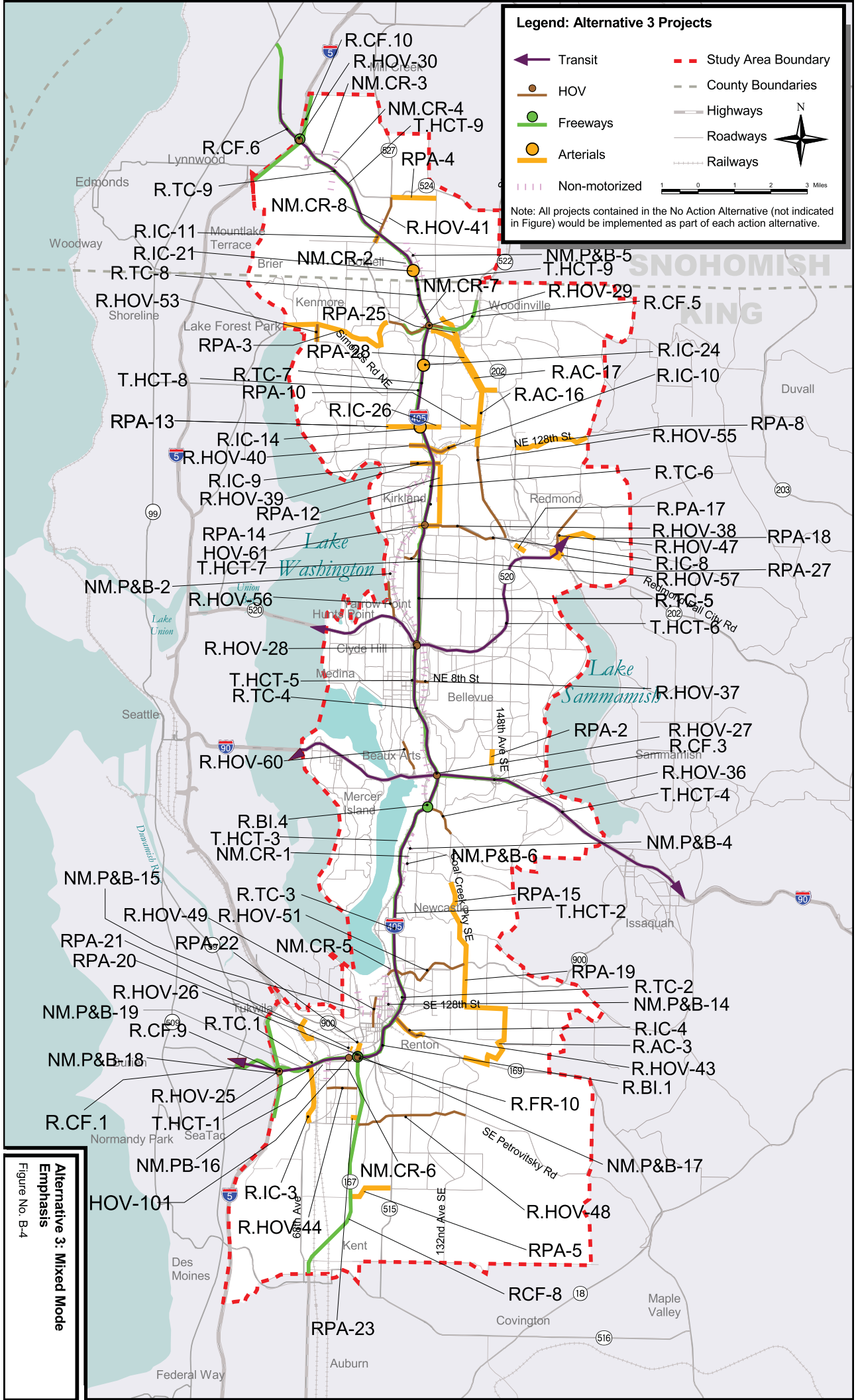
Figure No. B-1



Alternative 1: HCT/TDM Emphasis

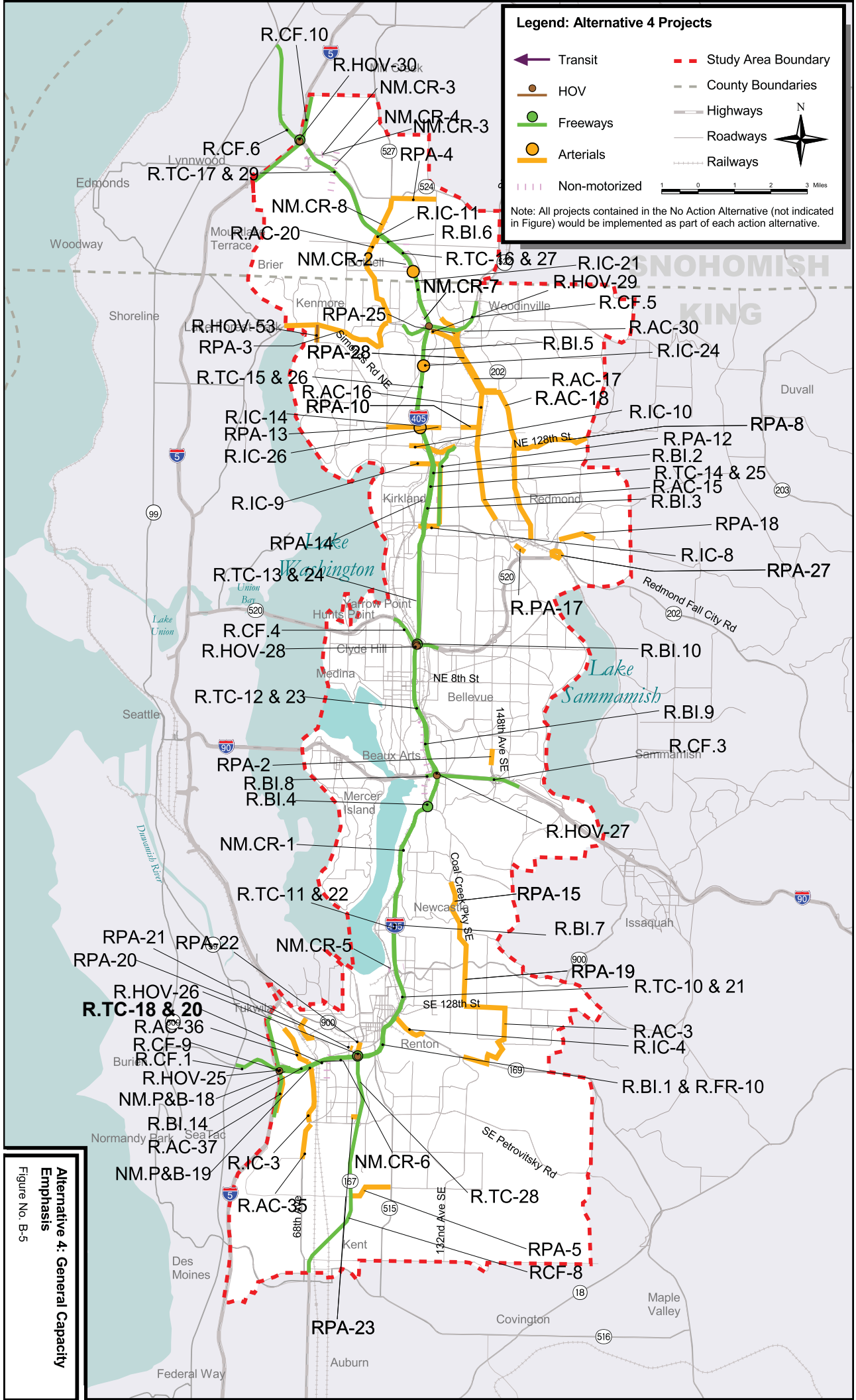
Figure No. B-2

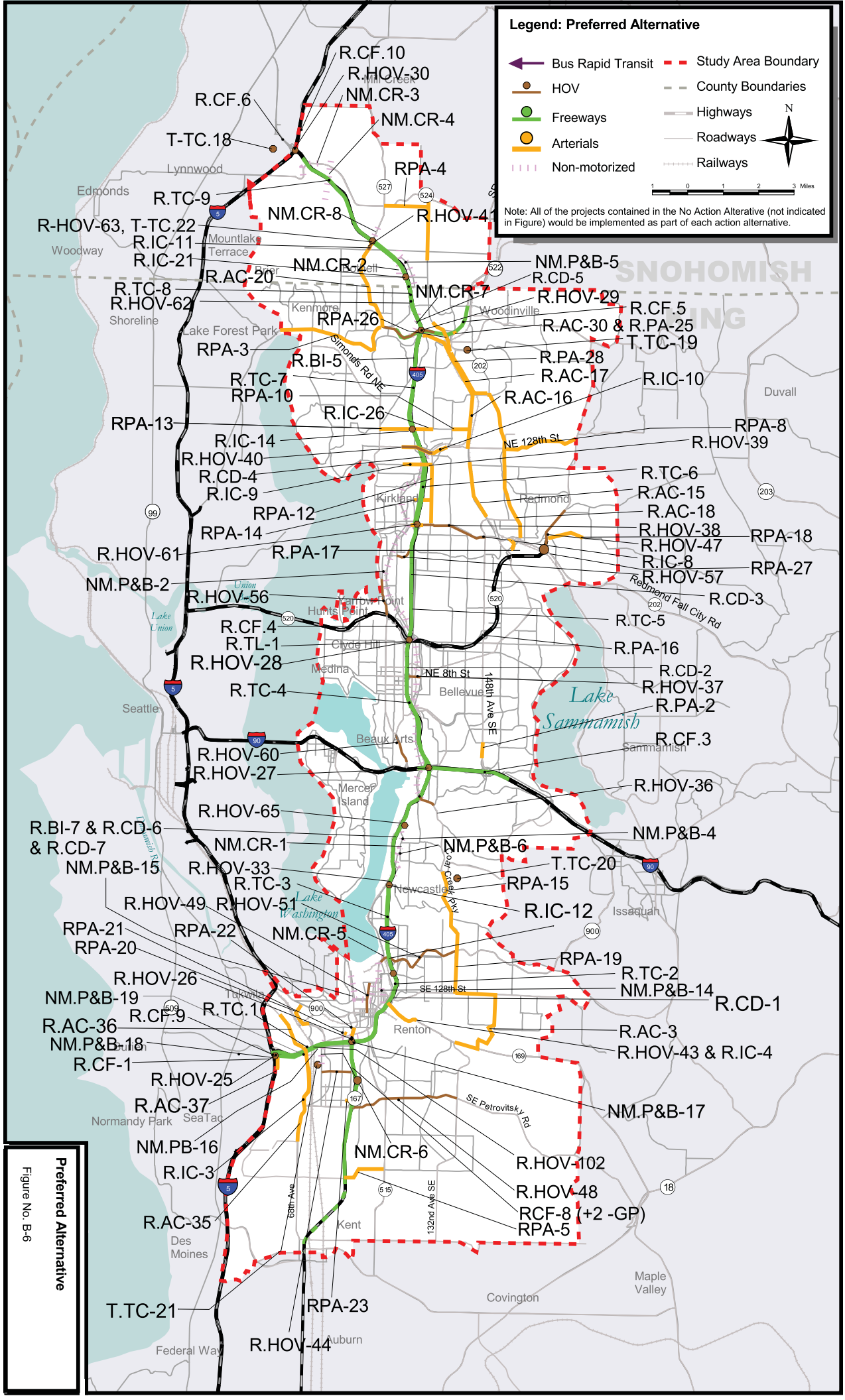

Legend: Alternative 2 Projects
Transit
HOV
Freeways
Arterials
Non-motorized
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
Miles
Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.
SNOHOMISH
KING
Lake Washington
Lake Sammamish
Mill Creek
Edmonds
Woodway
Brier
Bothell
Kenmore
Woodinville
Shoreline
Lake Forest Park
Kirkland
Redmond
Duvall
Seattle
Medina
Clyde Hill
Hunts Point
Yarrow Point
Bellevue
Beaux Arts
Mercer Island
Newcastle
Issaquah
Sammamish
Renton
Tukwila
Burien
Normandy Park
SeaTac
Des Moines
Kent
Auburn
Federal Way
Covington
Maple Valley
Lake Union
Duwamish R
Simonds Rd NE
NE 128th St
148th Ave SE
Coal Creek Pky SE
SE 128th St
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Redmond-Fall City Rd
NE 8th St
RCF-10
R.CF.6
T.HCT-9
R.HOV-30
R.PA-4
NM.CR-3
R.TC-17
NM.CR-4
R.HOV-41
R.TC-16
NM.CR-8
R.BI.6
NM.CR-2
NM.P&B-5
R.HOV-29
R.CF.5
RPA-11
R.HOV-53
RPA-25
R.BI.5
RPA-3
R.IC-24
R.TC-15
T.HCT-8
R.PA-28
RPA-10
R.IC-10
RPA-13
RPA-8
R.HOV-55
R.HOV-40
R.BI.2
R.HOV-39
R.TC-14
R.IC-9
R.BI.3
RPA-12
R.HOV-47
RPA-14
R.HOV-38
RPA-18
R.PA-17
R.IC-8
T.HCT-7
RPA-27
NM.P&B-2
R.HOV-57
R.HOV-56
R.TC-13
T.HCT-6
R.BI.10
R.HOV-28
T.HCT-5
R.HOV-37
R.TC-12
R.BI.9
R.HOV-60
R.HOV-27
RPA-2
R.HOV-36
R.BI.8
T.HCT-4
R.BI.4
T.HCT-3
R.HOV-65
NM.P&B-4
NM.CR-1
NM.P&B-6
NM.P&B-15
R.TC-11
RPA-15
R.HOV-49
R.HOV-51
T.HCT-2
R.BI.7
RPA-21
RPA-22
NM.CR-5
RPA-20
RPA-19
R.HOV-26
R.TC-10
NM.P&B-19
R.TC-18
NM.P&B-14
R.CF.9
R.IC-4
NM.P&B-18
R.CF.1
R.HOV-43
R.HOV-25
R.BI.1
R.FR-10
NM.P&B-17
R.BI.14
T.HCT-1
NM.PB-16
R.IC-3
NM.CR-6
R.HOV-48
R.HOV-44
RPA-5
RCF-8
RPA-23
Alternative 2: Mixed Mode With HCT/Transit Emphasis
Figure No. B-3



Alternative 3: Mixed Mode Emphasis

Figure No. B-4


Legend: Alternative 4 Projects
Transit
HOV
Freeways
Arterials
Non-motorized
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
Miles
Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.
R.CF.10
R.HOV-30
NM.CR-3
NM.CR-4
NM.CR-3
R.CF.6
RPA-4
R.TC-17 & 29
NM.CR-8
R.IC-11
R.AC-20
R.BI.6
NM.CR-2
R.TC-16 & 27
R.IC-21
NM.CR-7
R.HOV-29
R.CF.5
RPA-25
R.HOV-53
R.AC-30
RPA-3
RPA-28
R.BI.5
R.IC-24
R.TC-15 & 26
R.AC-17
R.AC-16
R.AC-18
RPA-10
R.IC-14
R.IC-10
RPA-8
RPA-13
R.PA-12
R.IC-26
R.BI.2
R.TC-14 & 25
R.IC-9
R.AC-15
R.BI.3
RPA-14
RPA-18
R.IC-8
RPA-27
R.TC-13 & 24
R.PA-17
R.CF.4
R.HOV-28
R.BI.10
R.TC-12 & 23
R.BI.9
R.CF.3
RPA-2
R.BI.8
R.BI.4
R.HOV-27
NM.CR-1
R.TC-11 & 22
RPA-15
R.BI.7
RPA-21
RPA-22
NM.CR-5
RPA-20
RPA-19
R.HOV-26
R.TC-10 & 21
R.TC-18 & 20
R.AC-36
R.AC-3
R.CF-9
R.IC-4
R.CF.1
R.HOV-25
R.BI.1 & R.FR-10
NM.P&B-18
R.BI.14
R.AC-37
NM.P&B-19
R.IC-3
NM.CR-6
R.TC-28
R.AC-35
RPA-5
RCF-8
RPA-23
Alternative 4: General Capacity Emphasis
Figure No. B-5


Legend: Preferred Alternative
Bus Rapid Transit
HOV
Freeways
Arterials
Non-motorized
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
1 0 1 2 3 Miles
Note: All of the projects contained in the No Action Alterative (not indicated in Figure) would be implemented as part of each action alternative.
R.CF.10
R.HOV-30
NM.CR-3
R.CF.6
NM.CR-4
T-TC.18
RPA-4
R.TC-9
NM.CR-8
R.HOV-41
R-HOV-63, T-TC.22
R.IC-11
R.IC-21
R.AC-20
NM.CR-2
NM.P&B-5
R.CD-5
R.TC-8
R.HOV-62
NM.CR-7
R.HOV-29
R.CF.5
RPA-26
R.AC-30 & R.PA-25
T.TC-19
RPA-3
R.BI-5
R.PA-28
R.TC-7
RPA-10
R.AC-17
R.IC-10
R.AC-16
R.IC-26
RPA-13
RPA-8
R.IC-14
R.HOV-39
R.HOV-40
R.CD-4
R.IC-9
R.TC-6
R.AC-15
RPA-12
R.AC-18
RPA-14
R.HOV-38
RPA-18
R.HOV-61
R.PA-17
R.HOV-47
R.IC-8
RPA-27
NM.P&B-2
R.HOV-57
R.CD-3
R.HOV-56
R.TC-5
R.CF.4
R.TL-1
R.PA-16
R.HOV-28
R.CD-2
R.TC-4
R.HOV-37
R.PA-2
R.CF.3
R.HOV-60
R.HOV-27
R.HOV-36
R.HOV-65
R.BI-7 & R.CD-6 & R.CD-7
NM.CR-1
NM.P&B-6
NM.P&B-4
NM.P&B-15
R.HOV-33
T.TC-20
R.TC-3
RPA-15
R.HOV-49
R.HOV-51
R.IC-12
RPA-21
RPA-22
NM.CR-5
RPA-20
RPA-19
R.HOV-26
R.TC-2
NM.P&B-19
NM.P&B-14
R.CF.9
R.TC.1
R.CD-1
R.AC-36
R.AC-3
NM.P&B-18
R.HOV-43 & R.IC-4
R.CF-1
R.HOV-25
R.AC-37
NM.P&B-17
NM.PB-16
NM.CR-6
R.IC-3
R.HOV-102
R.HOV-48
R.AC-35
RCF-8 (+2 -GP)
RPA-5
T.TC-21
RPA-23
R.HOV-44
Lake Forest Park
Shoreline
Woodway
Edmonds
Lynnwood
Mountlake Terrace
Kenmore
Woodinville
Duvall
Kirkland
Redmond
Carillon Point
Hunts Point
Clyde Hill
Medina
Bellevue
Lake Sammamish
Sammamish
Beaux Arts
Mercer Island
Newcastle
Issaquah
Seattle
Tukwila
Renton
Normandy Park
SeaTac
Des Moines
Kent
Auburn
Federal Way
Covington
Maple Valley
Lake Union
Lake Washington
Simonds Rd NE
NE 128th St
NE 8th St
148th Ave SE
Redmond Fall City Rd
SE 128th St
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Coal Creek Pkwy
SNOHOMISH
KING
Preferred Alternative
Figure No. B-6

APPENDIX C

I-405 Corridor Program
Future Land Use Impact Tables

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APPENDIX C: FUTURE LAND USE IMPACT TABLES

Table C.1: Future Land Use Potentially Impacted by No Action Alternative.

Jurisdiction	Actions	Future Potential Land Use Impact (Primary Land Use)
10. Committed Freeway Projects		
WSDOT R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.	Open Space and Commercial
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Bellevue R.IC-6	Coal Creek Parkway I-405 to Factoria Blvd.	Open Space and Residential
7. Committed HOV Projects		
Bellevue HOV-01	I-405 at NE 4th/6th/8th (Bellevue) / Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges	½ Commercial, ½ Mixed
Bellevue HOV-02	I-90 (Eastgate) / New I-90 HOV direct access connection to P&R	½ Commercial, ½ Residential
WSDOT HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct Northbound and Southbound HOV lanes total 6 lanes	Residential
Sound Transit HOV-101	I-405 @ Lind Ave. /HOV direct access improvements.	½ Commercial, ½ Residential .
Sound Transit HOV-102, R.HOV.58 & R.PA.1	Woodinville Arterial Enhancements/HOV arterial enhancements	Commercial, Industrial, Residential .
Renton R.HOV-32	Between Sunset and SR-900 /Park Ave. interchange in Renton	½ Industrial, ½ Residential
Renton R.HOV-33 & R.IC.12	NE 44th I/C - HOV Direct Access and Arterial Improvements(Assumes Port Quendall)	Mixed
Bothell R.HOV-62	SR 522 Campus Access	Mixed, Residential
Bothell R.HOV-63	SR 527	Commercial, Industrial, Mixed, Residential
Sound Transit R.HOV-66	I-405 at NE 128th St/HOV Direct Access Improvements	Commercial, Industrial, Mixed
8. Park and Rides (PR)		
Renton T.PR-3	Renton Highlands	Location not defined
Tukwila & Renton T.PR-6	Tukwila Commuter Rail (Longacres)	Location not defined
Bellevue & Kirkland T.PR-20	South Kirkland	Location not defined
Redmond T.PR-21	Overlake	Location not defined

*Underline indicates dominant land use type.

Bellevue T.PR-22	South Bellevue	Location not defined
Bellevue T.PR-23	Newport (112th Ave. SE)	Residential
King County T.PR-24	NE 160th/Brickyard Rd	Residential
Bothell T.PR-25	Canyon Park (SR 405 and SR 527)	Residential
Tukwila T.PR-30	Tukwila	Location not defined
Kirkland T.PR-31	Houghton	Location not defined
Kirkland T.PR-32	Kingsgate	Location not defined
Medina T.PR-33	Evergreen Point	Location not defined
Bellevue T.PR-34	Wilburton	Location not defined
King County T.PR-35	Lakemont	Location not defined
Redmond T.PR-36	Redmond	Location not defined
Redmond T.PR-37	Bear Creek	Location not defined
Bothell T.PR-38	Bothell	Location not defined
Kenmore T.PR-39	Northshore	Location not defined
Kenmore T.PR-40	Kenmore	Location not defined
Woodinville T.PR-41	Woodinville	Location not defined
Mercer Island T.PR-42	Mercer Island	Location not defined
Bellevue T.PR-43	Eastgate	Location not defined
9. Transit Centers (TC)		
Renton T.TC-6	Downtown Renton	Location not defined
Bellevue T.TC-8	Downtown Bellevue	Location not defined

*Underline indicates dominant land use type.

Redmond T.TC-9	Overlake	Location not defined
Kirkland T.TC-12	Downtown Kirkland	Location not defined
Kirkland T.TC-14	Totem Lake	Location not defined
17. Arterial Committed Projects		
Bothell, Snohomish County R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection	Industrial, Mixed, Residential
Bellevue R-08	NE 29th Place (148th Ave. NE to NE 24th St)/Construct new 2-lane road	Commercial, Industrial, Mixed, Residential
Snohomish County R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	Residential
Kirkland R-21	NE 120 St (Slater Ave. to 124 Ave. NE)--- Construct new 3-lane roadway with pedestrian/bike facilities	Commercial, Industrial, Residential
Redmond/ WSDOT R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/pedestrian facilities	Residential
Redmond R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	Industrial, Residential
Redmond R-28	West Lake Sammamish Parkway (Leary Way to Bellevue-Redmond Rd)--- Widen to 4/5 lanes + CGS, bike lanes	Residential
Renton R-36	Oaksdale Ave. SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	Commercial
KCDOT R-39 & R.AC.2	140 Ave. SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.	Residential
KCDOT R-40 & R.IC-24	Juanita-Woodinville Way (NE 145 St to 112th Ave. NE) Widen to 5 lanes + CGS, walkway/pathway	Mixed, Residential
KCDOT R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	Agricultural
Woodinville R-51	Woodinville-SnohomishRd/140 Ave. NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	Commercial, Mixed
Bellevue R-101	150th Ave. SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes	Commercial, Residential

*Underline indicates dominant land use type.

Redmond R-111 & R.AC.15	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th	Agricultural, Industrial, Residential
Snohomish County R-117	39th Ave. SE Realignment at SR 524 and York Rd-- -- Construct 4-way intersection to replace 2 offset intersections	Residential

*Underline indicates dominant land use type.

Table C.2: Future Land Use Potentially Impacted by Alternative 1.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential
Renton R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - Northbound 900 to 30th, Southbound 44th - 30th	Commercial, Mixed, Residential
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Open Space, Residential
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.	Residential

*Underline indicates dominant land use type.

Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial
Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential
Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) - Construct Northbound HOV lane	Mixed, Residential
Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential
Bellevue R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity	Residential
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential
4. High Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential
Bellevue & Issaquah T.HCT-4	HCT - Factoria To Issaquah	Commercial, Industrial, Residential
Bellevue T.HCT-5	HCT - Factoria to Downtown Bellevue	Commercial, Mixed, Residential
Bellevue & Redmond T.HCT-6	HCT - Bellevue to Redmond	Commercial, Industrial, Mixed, Residential
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential
Kirkland & King County T.HCT-8	HCT - Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential
Various T.HCT-9	HCT - Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential

*Underline indicates dominant land use type.

4. High Capacity Transit Stations		
Tukwila HCT.TS-2	Southcenter	Mixed
Tukwila & Renton HCT.TS-3	Tukwila (Longacres)	Commercial
Renton HCT.TS-4	Downtown Renton	Commercial
Renton HCT.TS-5	North Renton	Residential
Renton HCT.TS-6	Port Quendall	Mixed
Bellevue HCT.TS-7	Factoria	Commercial
Bellevue HCT.TS-8	Bellevue Transit Center	Mixed
Bellevue HCT.TS-9	Bellevue Library	Mixed
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential
Kirkland HCT.TS-12	Totem Lake	Commercial
Woodinville HCT.TS-13	NE 145th Street	Commercial
Woodinville HCT.TS-14	Woodinville	Mixed .
Bothell HCT.TS-15	NE 195th	Mixed
Bothell HCT.TS-16	Canyon Park	Residential
Snohomish County HCT.TS-17	164th Street AW (Ash Way)	Residential
Bellevue HCT.TS-18	Eastgate	Commercial
King County HCT.TS-19	Lakemont	Residential
Bellevue HCT.TS-21	132nd Avenue NE	Commercial

*Underline indicates dominant land use type.

Bellevue HCT.TS-22	148th Avenue NE	Commercial
Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial
Redmond HCT.TS-24	Redmond Town Center	Mixed
Redmond HCT.TS-25	Bear Creek	Commercial
8. Park and Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential
King County T.PR-10	140th Ave SE and SE 192nd	Residential
King County T.PR-11	SR 515 and SE 208th	Residential
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial
Redmond T.PR-18	SR 202 @ NE 100th	Residential
King County T.PR-26	SR 202 @ NE 145th	Residential
Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE – crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. – crossing I-405 from 228th St. SE to 240th St. SE – Add pedestrian/bike facility	Mixed
King County NM. CR-3	SR-524 (Filbert Road) – crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential
Snohomish County NM. CR-4	Damson Road – crossing I-405 from 192nd St SW to Logan Rd – Add sidewalk/paved shoulder	Residential
Renton NM. CR-5	NE Park Drive – crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd – Add sidewalk/paved shoulder	Industrial, Residential

*Underline indicates dominant land use type.

Renton NM. CR-6	Jackson SW/Longacres Dr SW – crossing I-405 from S. Longacres Way to Monster Rd SW – Add sidewalk/paved shoulder	Commercial
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail – between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed
Bothell NM. CR-8	SR-527 – crossing I-405 from 220th St SE to 228th St SE – pedestrian /bike facility	Commercial, Mixed, Residential
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right of Way – SE 8th to Totem Lake – Add pedestrian /bike facility.	Residential
Bellevue NM.P&B-4	Lake Washington Blvd – SR 405 to SE 60th – Add pedestrian /bike facilities	Residential
Bothell NM.P&B-5	North Creek Trail Link – 240th to 232nd – Add pedestrian /bike trail.	Residential
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th – SE 60th to May Creek I/C – Add pedestrian /bike facility	Residential
Renton NM.P&B-14	Cedar River Trail S. Extension – I-405 to Burnett Ave. – Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector – Cedar River Trail to Lake Wash Blvd Loop – Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-16	Cedar – Duwamish Trail Connection – I-405 to Interurban Ave. S. – Add pedestrian/bike facilities	Commercial
Renton NM.P&B-17	I-405/SR-167 trail connection – Lind Ave. SE to Talbot Rd S. – Add trail connection	Mixed
Renton/Tukwila NM.P&B-18	I-405/1-5 – via or around I-405/I-5 interchange – Add pedestrian/bike facilities	Mixed
Tukwila NM.P&B-19	SR-181/W. Valley Hwy – crossing I-405 from Strander Blvd to Fort Dent Way – Add bike lanes	Mixed

*Underline indicates dominant land use type.

Table C.3: Future Land Use Potentially Impacted by Alternative 2.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange – Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential
Renton R.BI.7	Kennydale Hill climbing lane – SR 900 to 44th – Northbound 900 to 30th, Southbound 44th – 30th	Commercial, Mixed, Residential
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential
Lynnwood R.CF.10	I-5 at Swamp Creek – 44th to 155th	Residential

*Underline indicates dominant land use type.

10A. One additional General Purpose or Auxiliary lane in each direction		
Tukwila, Renton R.TC-9	One additional General Purpose lane in each direction – SR 5 Tukwila to SR 167	Commercial, Mixed, Residential
Renton R.TC-10	One additional General Purpose lanes in each direction – SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential
Renton, Newcastle, Bellevue R.TC-11	One additional General Purpose lanes in each direction – SR 900/North Renton Interchange to SR 90	Mixed, Residential
Bellevue R.TC-12	One additional General Purpose lanes in each direction – SR 90 To SR 520	Commercial, Mixed, Residential
Bellevue, Kirkland R.TC-13	One additional General Purpose lanes in each direction – SR 520 to NE 70th (Verify need for additional through capacity on this section)	Government, Open Space, Residential
Kirkland R.TC-14	One additional General Purpose lanes in each direction – NE 70th to NE 124th	Mixed, Residential
Kirkland, King County, Bothell R.TC-15	One additional General Purpose lanes in each direction – NE 124th SR 522	Mixed, Residential
Bothell, Snohomish County R.TC-16	One additional General Purpose lanes in each direction – SR 522 to SR 527	Commercial, Mixed, Residential
Snohomish County R.TC-17	One additional General Purpose lanes in each direction – SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential,
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 I/C @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential

*Underline indicates dominant land use type.

Renton R.HOV-26	SR 167 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-27	SR 90 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential
Snohomish County R.HOV-30	SR 5 I/C @ Swamp Creek Freeway HOV ramps.	Residential
Newcastle R.HOV-65	112th St SE (In-Line Station)	Residential
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Residential
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity – HOV/Transit Preferential treatment.	Residential
Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial
Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential
Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) – Construct Northbound HOV lane	Mixed, Residential

*Underline indicates dominant land use type.

Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential
Bellevue R.HOV-60	Bellevue Way – I-90 to South Bellevue Park and Ride Vicinity	Residential
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential
4. High Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential .
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential
Bellevue & Issaquah T.HCT-4	HCT – Factoria To Issaquah	Commercial, Industrial, Residential
Bellevue T.HCT-5	HCT – Factoria to Downtown Bellevue	Commercial, Mixed, Residential
Bellevue & Redmond T.HCT-6	HCT – Bellevue to Redmond	Commercial, Industrial, Mixed, Residential
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential
Kirkland & King County T.HCT-8	HCT – Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential
Various T.HCT-9	HCT – Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential
4. High Capacity Transit Stations		
Tukwila HCT.TS-2	Southcenter	Mixed
Tukwila & Renton HCT.TS-3	Tukwila (Longacres)	Commercial
Renton HCT.TS-4	Downtown Renton	Commercial
Renton HCT.TS-5	North Renton	Residential
Renton HCT.TS-6	Port Quendall	Mixed

*Underline indicates dominant land use type.

Bellevue HCT.TS-7	Factoria	Commercial
Bellevue HCT.TS-8	Bellevue Transit Center	Mixed
Bellevue HCT.TS-9	Bellevue Library	Mixed
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential
Kirkland HCT.TS-12	Totem Lake	Commercial
Woodinville HCT.TS-13	NE 145th Street	Commercial
Woodinville HCT.TS-14	Woodinville	Mixed
Bothell HCT.TS-15	NE 195th	Mixed
Bothell HCT.TS-16	Canyon Park	Residential
Snohomish County HCT.TS-17	164th Street AW (Ash Way)	Residential
Bellevue HCT.TS-18	Eastgate	Commercial
King County HCT.TS-19	Lakemont	Residential
Bellevue HCT.TS-21	132nd Avenue NE	Commercial
Bellevue HCT.TS-22	148th Avenue NE	Commercial
Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial .
Redmond HCT.TS-24	Redmond Town Center	Mixed
Redmond HCT.TS-25	Bear Creek	Commercial
8. Park and Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential

*Underline indicates dominant land use type.

King County T.PR-10	140th Ave SE and SE 192nd	Residential
King County T.PR-11	SR 515 and SE 208th	Residential
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial
Redmond T.PR-18	SR 202 @ NE 100th	Residential
King County T.PR-26	SR 202 @ NE 145th	Residential
Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE – crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. – crossing I-405 from 228th St. SE to 240th St. SE – Add pedestrian/bike facility	Mixed
King County NM. CR-3	SR-524 (Filbert Road) – crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential
Snohomish County NM. CR-4	Damson Road – crossing I-405 from 192nd St SW to Logan Rd – Add sidewalk/paved shoulder	Residential
Renton NM. CR-5	NE Park Drive – crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd – Add sidewalk/paved shoulder	Industrial, Residential
Renton NM. CR-6	Jackson SW/Longacres Dr SW – crossing I-405 from S. Longacres Way to Monster Rd SW – Add sidewalk/paved shoulder	Commercial
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail – between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Open Space, Commercial
Bothell NM. CR-8	SR-527 – crossing I-405 from 220th St SE to 228th St SE – pedestrian /bike facility	Commercial, Mixed, Residential
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right of Way – SE 8th to Totem Lake – Add pedestrian /bike facility.	Residential
Bellevue NM.P&B-4	Lake Washington Blvd – SR 405 to SE 60th – Add pedestrian /bike facilities	Residential

*Underline indicates dominant land use type.

Bothell NM.P&B-5	North Creek Trail Link – 240th to 232nd – Add pedestrian /bike trail.	Residential
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th – SE 60th to May Creek I/C – Add pedestrian /bike facility	Residential
Renton NM.P&B-14	Cedar River Trail S. Extension – I-405 to Burnett Ave. – Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector – Cedar River Trail to Lake Wash Blvd Loop – Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-16	Cedar – Duwamish Trail Connection – I-405 to Interurban Ave. S. – Add pedestrian/bike facilities	Commercial
Renton NM.P&B-17	I-405/SR-167 trail connection – Lind Ave. SE to Talbot Rd S. – Add trail connection	Mixed
Renton/Tukwila NM.P&B-18	I-405/1-5 – via or around I-405/I-5 interchange – Add pedestrian/bike facilities	Mixed
Tukwila NM.P&B-19	SR-181/W. Valley Hwy – crossing I-405 from Strander Blvd to Fort Dent Way – Add bike lanes	Mixed
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential
Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential
KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential
Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential

*Underline indicates dominant land use type.

Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential
Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial
Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial
Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential
WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential

*Underline indicates dominant land use type.

Table C.4: Future Land Use Potentially Impacted by Alternative 3.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential
SR 405 Through Capacity (TC) 11. Two additional GP lanes in each direction		
Tukwila, Renton R.TC-1	Two additional General Purpose lanes in each direction - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential
Renton R.TC-2	Two additional General Purpose lanes in each direction - SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential
Renton, Newcastle, Bellevue R.TC-3	Two additional General Purpose lanes in each direction - SR 900/North Renton Interchange to SR 90	Mixed, Residential
Bellevue R.TC-4	Two additional General Purpose lanes in each direction - SR 90 To SR 520	Commercial, Mixed, Residential
Bellevue, Kirkland R.TC-5	Two additional General Purpose lanes in each direction - SR 520 to NE 70th	Government, Open Space, Residential
Kirkland R.TC-6	Two additional General Purpose lanes in each direction - NE 70th to NE 124th	Mixed, Residential
Kirkland, King County, Bothell R.TC-7	Two additional General Purpose lanes in each direction - NE 124th SR 522	Mixed, Residential
Bothell, Snohomish County R.TC-8	Two additional General Purpose lanes in each direction - SR 522 to SR 527	Commercial, Mixed, Residential
Snohomish County R.TC-9	Two additional General Purpose lanes in each direction - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential

*Underline indicates dominant land use type.

Bothell, Woodinville R.CF.5	SR 522 Bothell to NE 195th	Residential, Mixed
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential
Lynnwood R.CF.10	I-5 at Swamp Creek - 44th to 155th	Residential
18. Arterial Capacity (AC) Actions		
King County, Renton R.AC-3	138th Ave. SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St	Residential
King County, Woodinville R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes	Agricultural, Residential
Woodinville R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes	Agricultural, Residential
Bothell, Woodinville R.AC-30 & R.PA.25	SR 202 connection across SR 522 to 120th	Mixed, Residential .
19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential,
Kirkland, King County R.IC-14	New half diamond interchange to/from North at NE 132nd St	Residential
Bothell R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)	Industrial, Mixed, Residential
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential
Kirkland R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave. NE	Government, Residential
7. Committed HOV Projects		
Sound Transit HOV-101	I-405 @ Lind Ave. /HOV direct access improvements.	½ Commercial, ½ Residential

*Underline indicates dominant land use type.

Kirkland R.HOV-61	NE 85th	Commercial, Mixed, Residential
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 I/C @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential
Renton R.HOV-26	SR 167 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-27	SR 90 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential
Snohomish County R.HOV-30	SR 5 I/C @ Swamp Creek Freeway HOV ramps.	Residential
6. Arterial HOV		
Bellevue R.HOV-36	Coal Creek Parkway from I-405 to Forest Drive	Residential .
Bellevue R.HOV-37	NE 8th Street from I-405 to 120th Ave. NE	½ Commercial, ½ Mixed
Kirkland, Redmond R.HOV-38	NE 85th St from Kirkland Way to 148th Ave. NE Vicinity	Open Space, Residential
Kirkland R.HOV-39	NE 116th from 115th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.HOV-40	NE 124th from 113th Ave. NE to 132 Ave. NE	Commercial, Mixed, Open Space
Bothell R.HOV-41	SR 527 From SE 228th St to SR 524	Industrial, Mixed, Residential
Renton R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment.	Residential
Renton R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave. to SR 167	Commercial
Redmond R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct Southbound HOV lane	Mixed, Residential
Renton, King County R.HOV-48	SW 43 St from SR 167 to 140 Ave. SE	Commercial, Government, Residential
Renton R.HOV-49	Logan Ave. N/N 6 St from S 3 St to Park Dr, Transit Signal Priority	½ Commercial, ½ Industrial
Renton R.HOV-51	Park Dr/Sunset Blvd from Garden Ave. to Duvall Ave. NE, Queue Bypass'	Mixed, Residential

*Underline indicates dominant land use type.

Kenmore R.HOV-53 & R.PA.11	68 Ave. NE (Simonds Rd to SR 522) - Construct Northbound HOV lane	Mixed, Residential
Redmond R.HOV-55	Willows Rd (Redmond Way to NE 124 St)	Commercial
Kirkland, Bellevue R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes	Open Space, Residential
Kirkland R.HOV-57	NE 68 St/NE 72 Place (I-405 Vicinity) Queue Bypass'	Residential
Bellevue R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity	Residential
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential
4. High Capacity Transit		
Tukwila & Renton T.HCT-1	HCT- SeaTac to Renton CBD	Commercial, Mixed, Residential
Renton T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)	Industrial, Mixed, Residential
Renton, Newcastle & Bellevue T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria	Residential
Bellevue & Issaquah T.HCT-4	HCT - Factoria To Issaquah	Commercial, Industrial, Residential
Bellevue T.HCT-5	HCT - Factoria to Downtown Bellevue	Commercial, Mixed, Residential
Bellevue & Redmond T.HCT-6	HCT - Bellevue to Redmond	Commercial, Industrial, Mixed, Residential
Bellevue & Kirkland T.HCT-7	HCT- Bellevue to Totem Lake	Commercial, Open Space, Residential
Kirkland & King County T.HCT-8	HCT - Totem Lake to Bothell	Agricultural, Commercial, Industrial, Mixed, Residential
Various T.HCT-9	HCT - Bothell to Lynnwood	Commercial, Industrial, Mixed, Residential
4. High Capacity Transit Stations		
Tukwila HCT.TS-2	Southcenter	Mixed
Renton HCT.TS-4	Downtown Renton	Commercial
Renton HCT.TS-6	Port Quendall	Mixed
Bellevue HCT.TS-7	Factoria	Commercial

*Underline indicates dominant land use type.

Bellevue HCT.TS-8	Bellevue Transit Center	Mixed
Bellevue & Kirkland HCT.TS-10	SR 520/Northup Way	Residential
Kirkland HCT.TS-11	Downtown Kirkland (NE 85th Street)	Residential
Kirkland HCT.TS-12	Totem Lake	Commercial
Bothell HCT.TS-15	NE 195th	Mixed
Bothell HCT.TS-16	Canyon Park	Residential
Bellevue HCT.TS-18	Eastgate	Commercial
Bellevue HCT.TS-22	148th Avenue NE	Commercial
Redmond HCT.TS-23	Overlake (NE 40th Street)	Industrial
Redmond HCT.TS-24	Redmond Town Center	Mixed
Redmond HCT.TS-25	Bear Creek	Commercial
8. Park and Rides (PR)		
King County T.PR-8	SR 169 and 140th Place SE	Commercial
King County T.PR-9	Petrovitsky Rd and 157th Ave SE	Residential
King County T.PR-10	140th Ave SE and SE 192nd	Residential
King County T.PR-11	SR 515 and SE 208th	Residential
Kent & Renton T.PR-12	SR 167 and SW 43rd	Commercial
Kent & Renton T.PR-13	SR 167 and 84th Ave	Industrial
Redmond T.PR-17	Willows Rd @ NE 100th	Commercial
Redmond T.PR-18	SR 202 @ NE 100th	Residential
King County T.PR-26	SR 202 @ NE 145th	Residential

*Underline indicates dominant land use type.

Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential
Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential
21. Pedestrian/Bicycle Connections		
Bellevue, Kirkland NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add pedestrian /bike facility.	Residential
Bellevue NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add pedestrian /bike facilities	Residential
Bothell NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add pedestrian /bike trail.	Residential
Bellevue, Newcastle, Renton NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek I/C - Add pedestrian /bike facility	Residential
Renton NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave. - Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lake Wash Blvd Loop - Add pedestrian /bike facilities	Industrial, Residential
Renton NM.P&B-16	Cedar - Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add pedestrian/bike facilities	Commercial
Renton NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection	Mixed

*Underline indicates dominant land use type.

Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 interchange - Add pedestrian/bike facilities	Mixed
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential
Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential
KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential
Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential
Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential

*Underline indicates dominant land use type.

Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial
Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial
Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential
WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential

*Underline indicates dominant land use type.

Table C.5: Future Land Use Potentially Impacted by Alternative 4.

Jurisdiction	Actions	Future Land Use Analysis
10. Basic I-405 Improvement Projects		
Renton R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane Southbound SR 169 to SR 167	½ Commercial, ½ Residential
Kirkland R.BI.2	Continue Northbound climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th	Commercial, Mixed, Open Space, Residential
Kirkland R.BI.3	Southbound auxiliary Lane NE 124th to NE 85th	Commercial, Mixed, Open Space, Residential
Bellevue R.BI.4	I-90 / Coal Creek Interchange	Residential
Bothell, King County, Kirkland R.BI.5	Southbound SR 522 to 124th continue climbing lane as an auxiliary lane	Commercial, Mixed, Residential
Bothell R.BI.6	Northbound auxiliary lane SR 522 to SR 527	Industrial, Mixed, Residential
Renton R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - Northbound 900 to 30th, Southbound 44th - 30th	Commercial, Mixed, Residential
Bellevue R.BI.8	I-90 to Bellevue Southbound HOV direct connection to I-90 west	Residential
Bellevue R.BI.9	Northbound auxiliary lane I-90 to NE 8th	Commercial, Mixed, Residential
Bellevue R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity	½ Commercial, ½ Residential
Renton R.BI.14	Northbound Auxiliary Lane I-5 to SR 167	Commercial, Industrial, Mixed
13. Express Lanes- 2 lanes each direction between major interchanges		
Tukwila, Renton R.TC-20	Add Express lanes - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential
Renton R.TC-21	Add Express lanes - SR 167 to SR 900 North Renton	Commercial, Mixed, Residential
Renton, Newcastle, Bellevue R.TC-22	Add Express lanes -SR 900 North Renton Interchange to SR 90	Mixed, Residential
Bellevue R.TC-23	Add Express lanes - SR 90 to SR 520	Commercial, Mixed, Residential .
Bellevue, Kirkland R.TC-24	Add Express lanes - SR 520 to NE 70th	Government, Open Space, Residential
Kirkland R.TC-25	Add Express lanes - NE 70th to NE 124th	Mixed, Residential
Kirkland, King County, Bothell R.TC-26	Add Express lanes - NE 124th to SR 522	Mixed, Residential

*Underline indicates dominant land use type.

Bothell, Snohomish County R.TC-27	Add Express lanes - SR 522 to SR 527	Commercial, Mixed, Residential
Snohomish County R.TC-29	Add Express Lanes - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential
Renton R.TC-28	Add Express lanes- on SR 167North of 180th up to I-405	Mixed, Residential
13. Express Lanes - Access Locations		
Tukwila & Renton R.TC-29	Southern end to Express lanes - Between SR 181 and SR 167	Commercial
Snohomish County R.TC-30	Northern end to Express lanes - Between SR 527 and I-5	Residential .
King County, Kirkland R.TC-31	Slip Ramp- South of NE 160th St	Mixed, Residential
Kirkland R.TC-32	Slip Ramp- South of NE 70th St	Residential
Bellevue, Newcastle R.TC-33	Slip Ramp- South of Coal Creek Pkwy	Residential
Renton R.TC-34	Interchange access location- SR 167	Commercial, Mixed, Residential
14. Widen SR 167 by 1 lane each direction to study Area boundary		
Renton, Kent R.CF.8	SR 167 I-405 to Study Area Boundary	Commercial, Industrial, Mixed, Residential
14A. SR 167 / I-405 Interchange Improvements		
Renton R.FR-10	SR 167/I-405 Interchange Add Directional Ramps for major movements	Commercial, Mixed, Residential
16. Connecting Freeway Capacity (Matched to fit I-405 Improvements)		
Tukwila R.CF.1	SR 518 I-405 to SR 99/Airport Access	½ Mixed, ½ Residential
Bellevue R.CF.3	I-90 South Bellevue to Eastgate	Commercial, Residential
Bellevue R.CF.4	SR 520 Bellevue Way to 148th	Commercial, Industrial, Mixed, Residential
Bothell, Woodinville R.CF.5	SR 522 Bothell to NE 195th	Residential, Mixed
Tukwila R.CF.9	I-5 at Tukwila	½ Mixed, ½ Residential
Lynnwood R.CF.10	I-5 at Swamp Creek - 44th to 155th	Residential
10A. One additional General Purpose or Auxiliary lane in each direction		
Tukwila, Renton R.TC-9	One additional General Purpose lane in each direction - SR 5 Tukwila to SR 167	Commercial, Mixed, Residential

*Underline indicates dominant land use type.

Renton R.TC-10	One additional General Purpose lanes in each direction - SR 167 to SR 900/North Renton Interchange	Commercial, Mixed, Residential
Renton, Newcastle, Bellevue R.TC-11	One additional General Purpose lanes in each direction - SR 900/North Renton Interchange to SR 90	Mixed, Residential
Bellevue R.TC-12	One additional General Purpose lanes in each direction - SR 90 To SR 520	Commercial, Mixed, Residential
Bellevue, Kirkland R.TC-13	One additional General Purpose lanes in each direction - SR 520 to NE 70th (Verify need for additional through capacity on this section)	Government, Open Space, Residential
Kirkland R.TC-14	One additional General Purpose lanes in each direction - NE 70th to NE 124th	Mixed, Residential
Kirkland, King County, Bothell R.TC-15	One additional General Purpose lanes in each direction - NE 124th SR 522	Mixed, Residential
Bothell, Snohomish County R.TC-16	One additional General Purpose lanes in each direction - SR 522 to SR 527	Commercial, Mixed, Residential
Snohomish County R.TC-17	One additional General Purpose lanes in each direction - SR 527 to SR 5 Swamp Creek	Commercial, Mixed, Residential
18. Arterial Capacity (AC) Actions		
King County, Renton R.AC-3	138th Ave. SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St	Residential
Redmond R.AC-15 & R-111	Willows Rd- NE 90th St to NE 124th St- Add 1 lane each direction	Agricultural, Industrial, Residential
King County, Woodinville R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes	Agricultural, Residential
Woodinville R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes	Agricultural, Residential
Redmond, King County, Woodinville R.AC-18 & R.PA 28	SR 202 - NE 90th to NE 145th	Agricultural, Residential
Bothell, Snohomish County, Mill Creek R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction	Mixed, Residential
Bothell, Woodinville R.AC-30 & R.PA.25	SR 202 connection across SR 522 to 120th	Mixed, Residential
Tukwila R.AC-35	SR 181- S 180th to S 200th	Industrial
Tukwila R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.	Industrial, Mixed
Tukwila R.AC-37	Southcenter Parkway - Tukwila Parkway to Strander Blvd.	Mixed

*Underline indicates dominant land use type.

19. Arterial Interchange Improvements (Matched to fit I-405 Improvements)		
Tukwila R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36	Mixed, Industrial
Renton R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43	Residential
Kirkland, Redmond R.IC-8	NE 85th St-Kirkland Way to 124th	Commercial, Industrial, Residential
Kirkland R.IC-9	NE 116th- 114th Ave. NE to 124th Ave. NE	Industrial, Residential
Kirkland R.IC-10	NE 124th- 113th Ave. NE to 124th Ave. NE	Commercial, Residential
Bothell R.IC-11	SR 527-228th to SR 524	Commercial, Mixed, Residential,
Kirkland, King County R.IC-14	New half diamond interchange to/from North at NE 132nd St	Residential
Bothell R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)	Industrial, Mixed, Residential
Bothell R.IC-24 & R-40	NE 160th Street-112th Ave. to Juanita/Woodinville Way See R-40	Mixed, Residential
Kirkland R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave. NE	Government, Residential .
7. HOV Interchange Ramps (Direct Access)		
Tukwila R.HOV-25	SR 5 I/C @ Tukwila Freeway to Freeway HOV ramps,	½ Mixed, ½ Residential
Renton R.HOV-26	SR 167 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-27	SR 90 I/C Freeway to Freeway HOV ramps,	Commercial, Residential
Bellevue R.HOV-28	SR 520 Freeway to Freeway HOV ramps,	Industrial, Residential
Bothell R.HOV-29	SR 522 Freeway to Freeway HOV Ramps	Industrial, Residential
Snohomish County R.HOV-30	SR 5 I/C @ Swamp Creek Freeway HOV ramps.	Residential
23. Freight (F)		
Renton R.FR-10 & R.BI.1	Modify SR 167 Interchange for East to South Freight movements	Commercial, Mixed, Residential

*Underline indicates dominant land use type.

Pedestrian and Bicycle Facilities (P&B)		
21. I-405 Crossings		
Bellevue NM. CR-1	Lake Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks	Residential
Bothell NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add pedestrian/bike facility	Mixed
King County NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder	Commercial, Residential
Snohomish County NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder	Residential
Renton NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder	Industrial, Residential
Renton NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder	Commercial
Bothell NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add pedestrian/bike overcrossing of I-405	Industrial, Mixed
Bothell NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - pedestrian /bike facility	Commercial, Mixed, Residential
21. Pedestrian/Bicycle Connections		
Renton/Tukwila NM.P&B-18	I-405/1-5 - via or around I-405/I-5 interchange - Add pedestrian/bike facilities	Mixed
Tukwila NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes	Mixed
17. Planned Arterial Projects		
Bellevue R.PA-2	148 Ave. SE (SE 24 St to SE 28 St) New Southbound lane from SE 24 St to the WB I-90 on-ramp (ETP 203)	Commercial, Residential
Bothell R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)	Mixed, Residential
Bothell R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)	Residential

*Underline indicates dominant land use type.

KCDOT R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)	Commercial, Residential
KCDOT R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)	Residential
KCDOT R.PA-10	NE 132 St Extension (132 Ave. NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)	Residential
Kenmore/KCDOT R.PA-11 & R.HOV.53	68 Ave. NE (Simonds Rd to SR 522)--- Construct Northbound HOV lane total of 5/6 lanes (ETP 22)	Mixed, Residential
Kirkland R.PA-12	124 Ave. NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with pedestrian /bike facilities (ETP R-23)	Open Space, Residential
Kirkland R.PA-13 & R.IC-26	NE 132 St (100 Ave. NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)	Residential
Kirkland R.PA-14	NE 100 St (117 Ave. NE to Slater Ave.) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	Open Space, Residential
Newcastle R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)	Commercial, Open Space, Residential
Redmond R.PA-16	Redmond 148th Ave. NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor – BROTS;	Industrial, Open Space, Residential
Redmond R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave. NE arterial and new 72nd St arterial w/ bike/ pedestrian and CSG; widen Bear Creek Pkwy (ETP R-110)	Mixed
Redmond R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave. NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)	Industrial, Mixed, Residential
Renton R.PA-19	Duvall Ave. NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)	Mixed, Open Space, Residential
Renton R.PA-20	Oakesdale Ave. SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)	Commercial, Industrial
Renton R.PA-21	Rainier Ave. / Grady Way (intersection)-- Grade separation	Commercial

*Underline indicates dominant land use type.

Renton R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)	Commercial
Renton R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)	Commercial
Woodinville R.PA-25 & R.AC.30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)	Mixed, Residential
Woodinville R.PA-26	SR202 Corridor Package (SR202/148th Ave. & SR202/127th Place)--- Intersection improvements (ETP R-54)	Agricultural, Residential
WSDOT R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and through lane on 202 to SR 520 (ETP R-29)	Mixed, Residential
WSDOT R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)	½ Mixed, ½ Residential

*Underline indicates dominant land use type.

APPENDIX D

I-405 Corridor Program
Key Views in the Corridor

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APPENDIX D: KEY VIEWS IN THE CORRIDOR

KEY VIEWS AND ALTERNATIVE TREATMENTS

Renton Vicinity

Alternatives 2 and 3 and the Preferred Alternative include widening I-405 to accommodate two additional lanes northbound and two additional southbound lanes separated by concrete barriers. Alternative 4 adds four more lanes in a stacked configuration built into the hillside. These actions would impact the view from viewpoint 17, which has a visual quality assessment rating of 3.11 (see Figure D-1). Figure E-1 in Appendix E illustrates alternative treatments at milepost 4 in Renton.

Bellevue Vicinity

Alternatives 2 and 4 include adding a lane to existing roadway paving and would have little impact on visual resources. Alternative 3 proposes covering the northbound lanes with a lid. The Preferred Alternative adds one more lane each direction on I-405 with new overcrossings at NE 2nd and NE 10th. All widening would be within the new footprint for the Bellevue Downtown Access project. These alternatives would impact views from viewpoints 7, 8, and 22. These views have visual quality assessment ratings of 3.03, 2.61, and 2.42 respectively (see Figures D-4 and D-11). Figures E-2 and E-3 in Appendix E illustrate alternative treatments at mileposts 13 and 14 in Bellevue.

Kirkland Vicinity

Alternatives 2 and 3 and the Preferred Alternative include widening the roadway to add lanes in each direction. Alternative 4 additionally proposes depressing the existing northbound lanes and adding four express lanes on an elevated structure over the northbound lanes. These alternatives would impact the view from viewpoint 10, which has a visual quality assessment rating of 3.69 (see Figure D-5). Figure E-4 in Appendix E illustrates alternative treatments at milepost 18 in Kirkland.

Bothell Vicinity

Alternative 2 shows adding lanes to the existing roadway and an at-grade high-capacity transit alignment in the existing median. Alternative 3 and the Preferred Alternative proposes HOV lanes in each direction on the median side of the existing roadway. Alternative 4 illustrates four additional express lanes in a separated alignment in the existing median. These alternatives would impact views from viewpoint 14, which has a visual quality assessment rating of 4.56 (see Figure D-7). Figures E-5 and E-6 in Appendix E illustrate alternative treatments at milepost 26 in Bothell.

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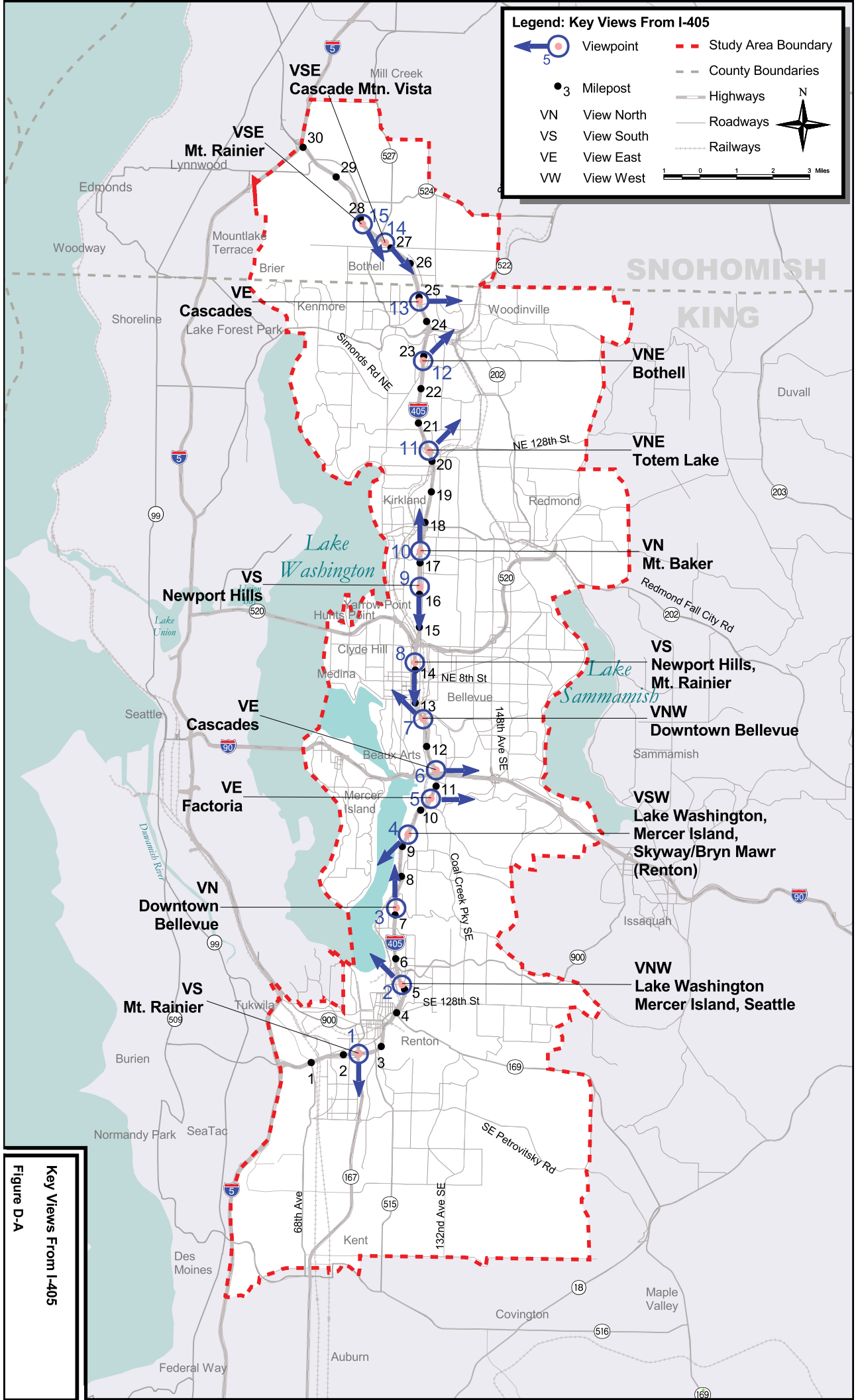


Figure D-A

Key Views From I-405

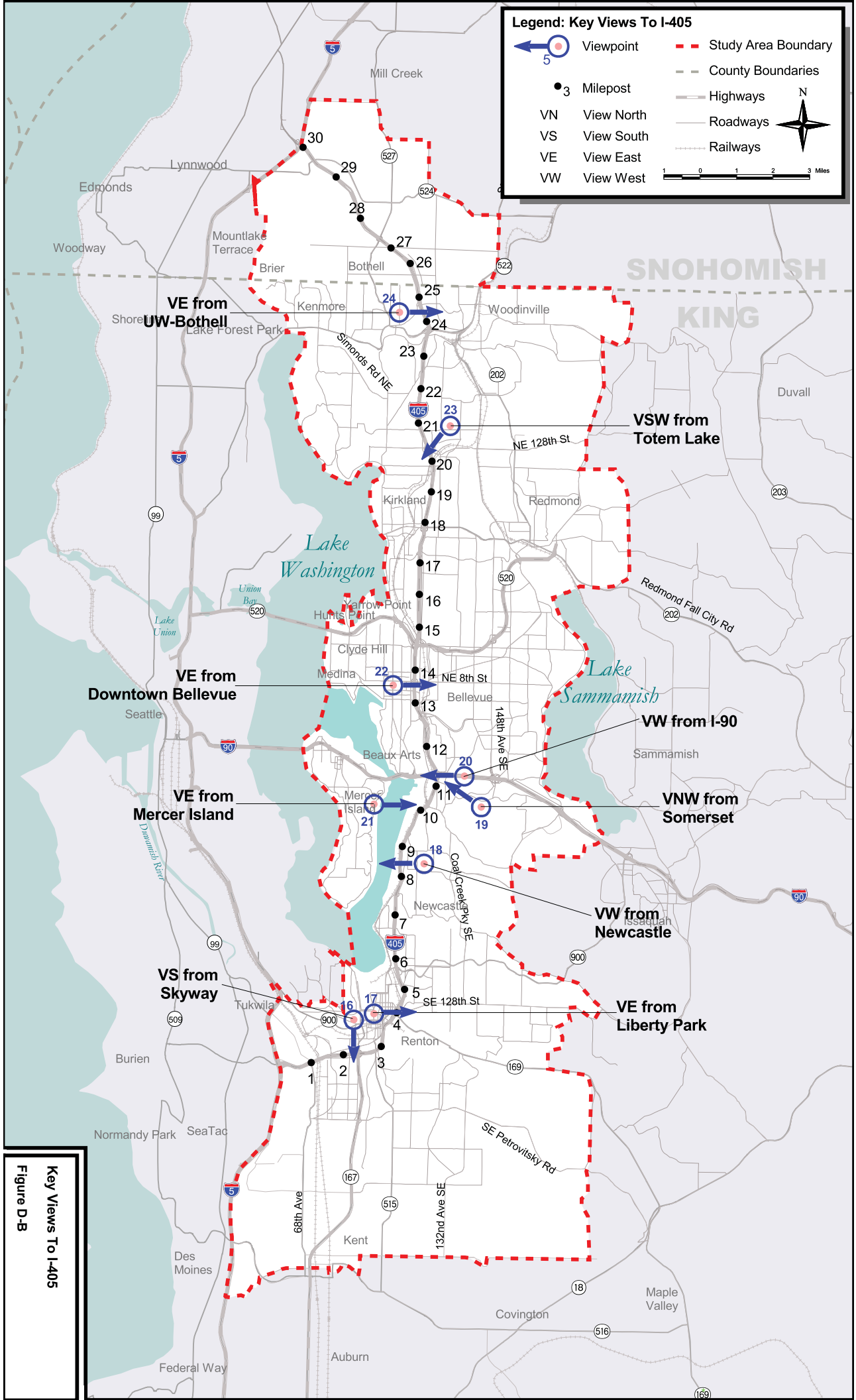


Figure D-B
Key Views To I-405



View 1



View 2

I-405 CORRIDOR PROGRAM

Key Views

Figure D-1



View 3



View 4

I-405 CORRIDOR PROGRAM

Key Views

Figure D-2



View 5



View 6

I-405 CORRIDOR PROGRAM

Key Views

Figure D-3



View 7



View 8

I-405 CORRIDOR PROGRAM

Key Views

Figure D-4



View 9



View 10

I-405 CORRIDOR PROGRAM

Key Views

Figure D-5



View 11



View 12

I-405 CORRIDOR PROGRAM

Key Views

Figure D-6



View 13



View 14



View 15



View 16

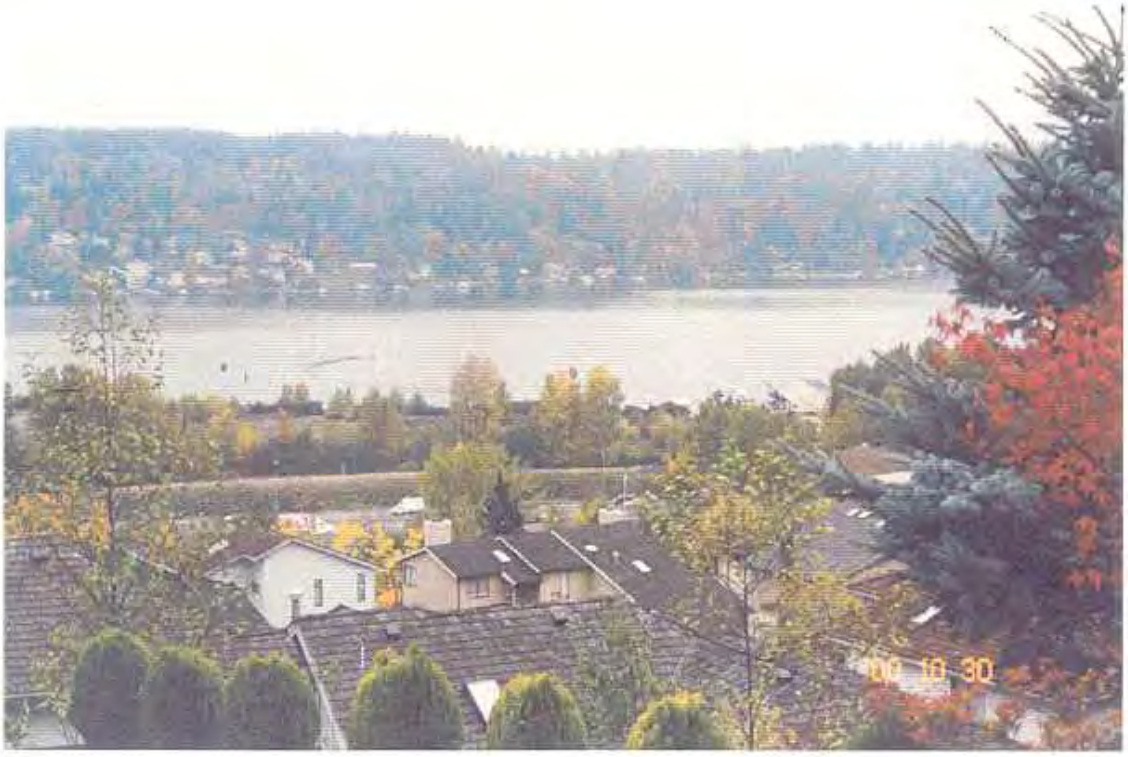
I-405 CORRIDOR PROGRAM

Key Views

Figure D-8



View 17



View 18

I-405 CORRIDOR PROGRAM

Key Views

Figure D-9



View 19



View 20



View 21



View 22

I-405 CORRIDOR PROGRAM

Key Views

Figure D-11



View 23



View 24

I-405 CORRIDOR PROGRAM

Key Views

Figure D-12

APPENDIX E

I-405 Corridor Program
Roadway Sections

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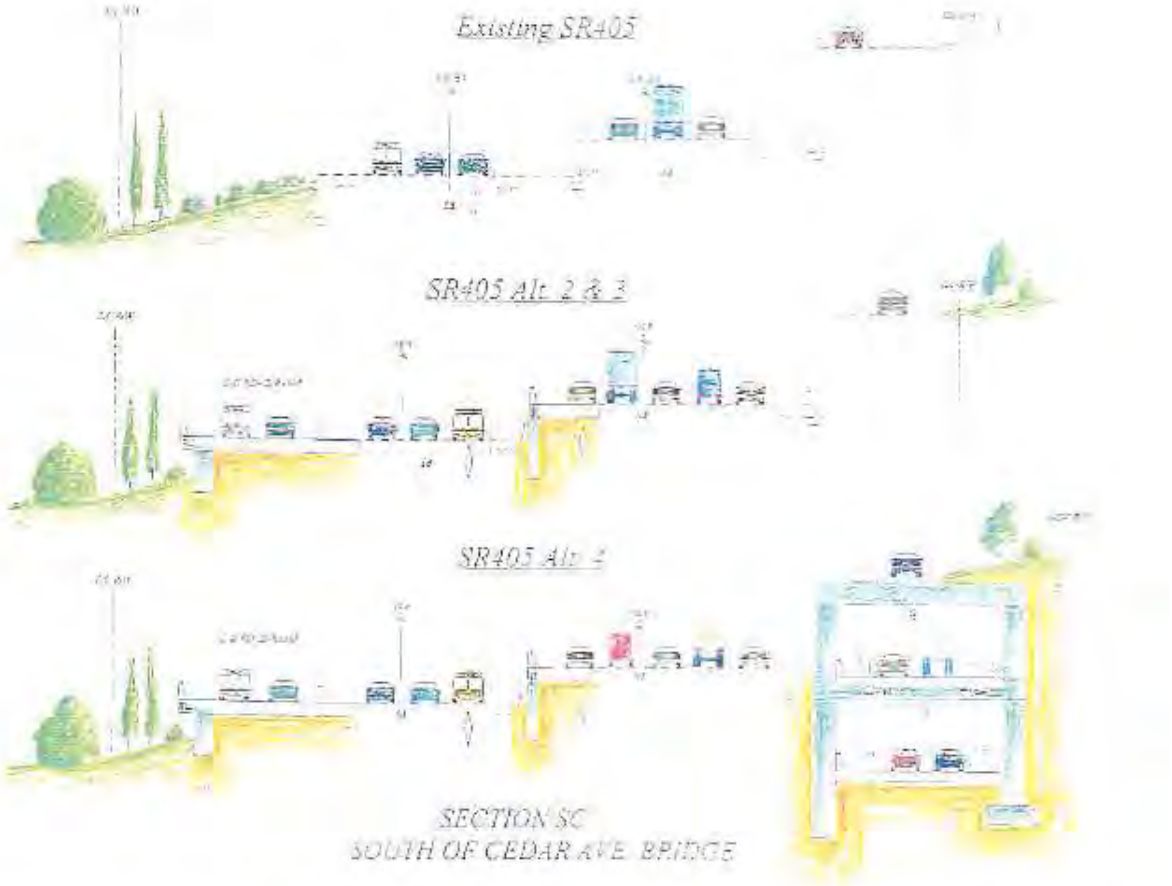




I-405 CORRIDOR PROGRAM

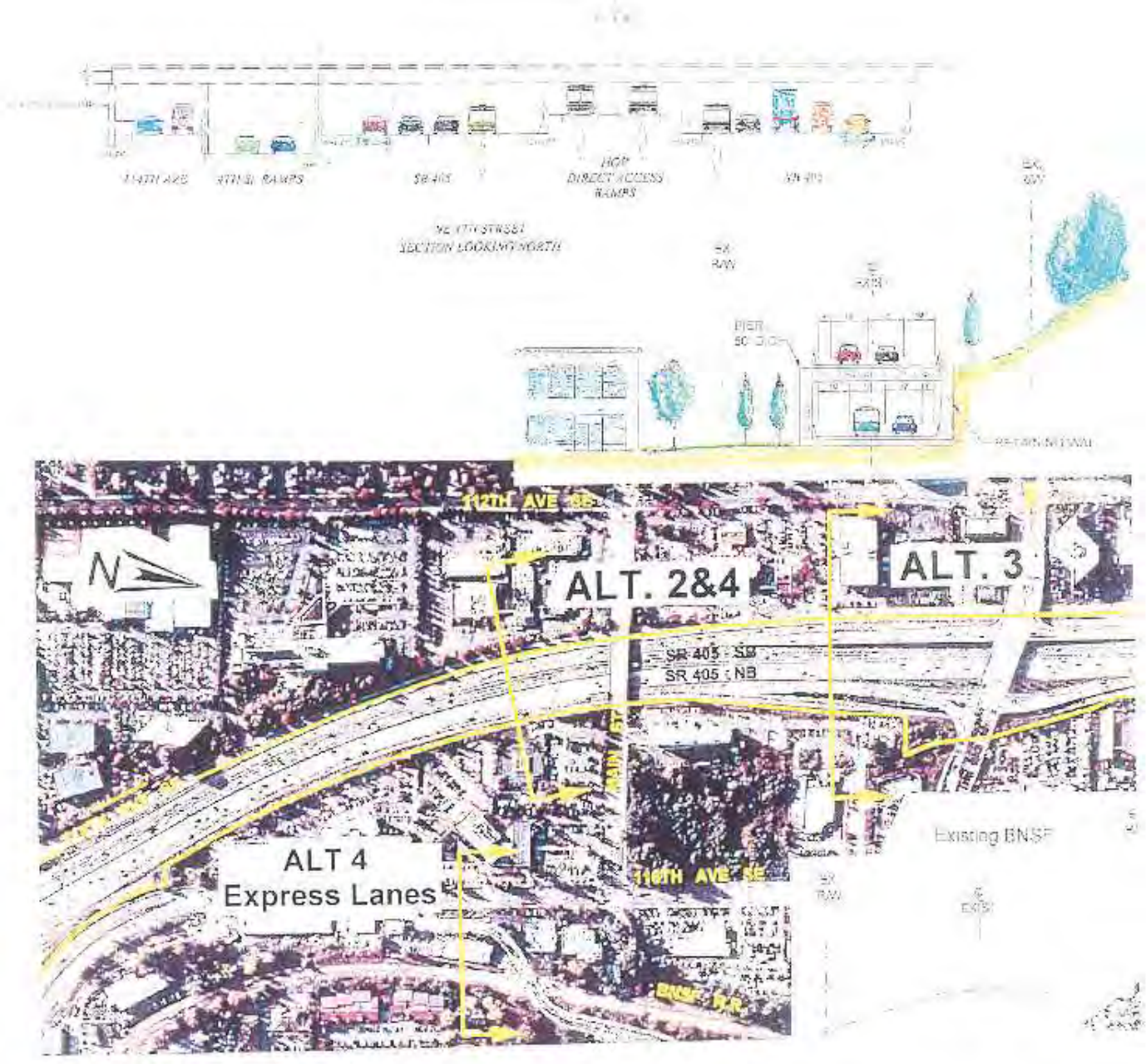
Roadway Section Alternatives in Renton

Figure E-1

Existing SR405



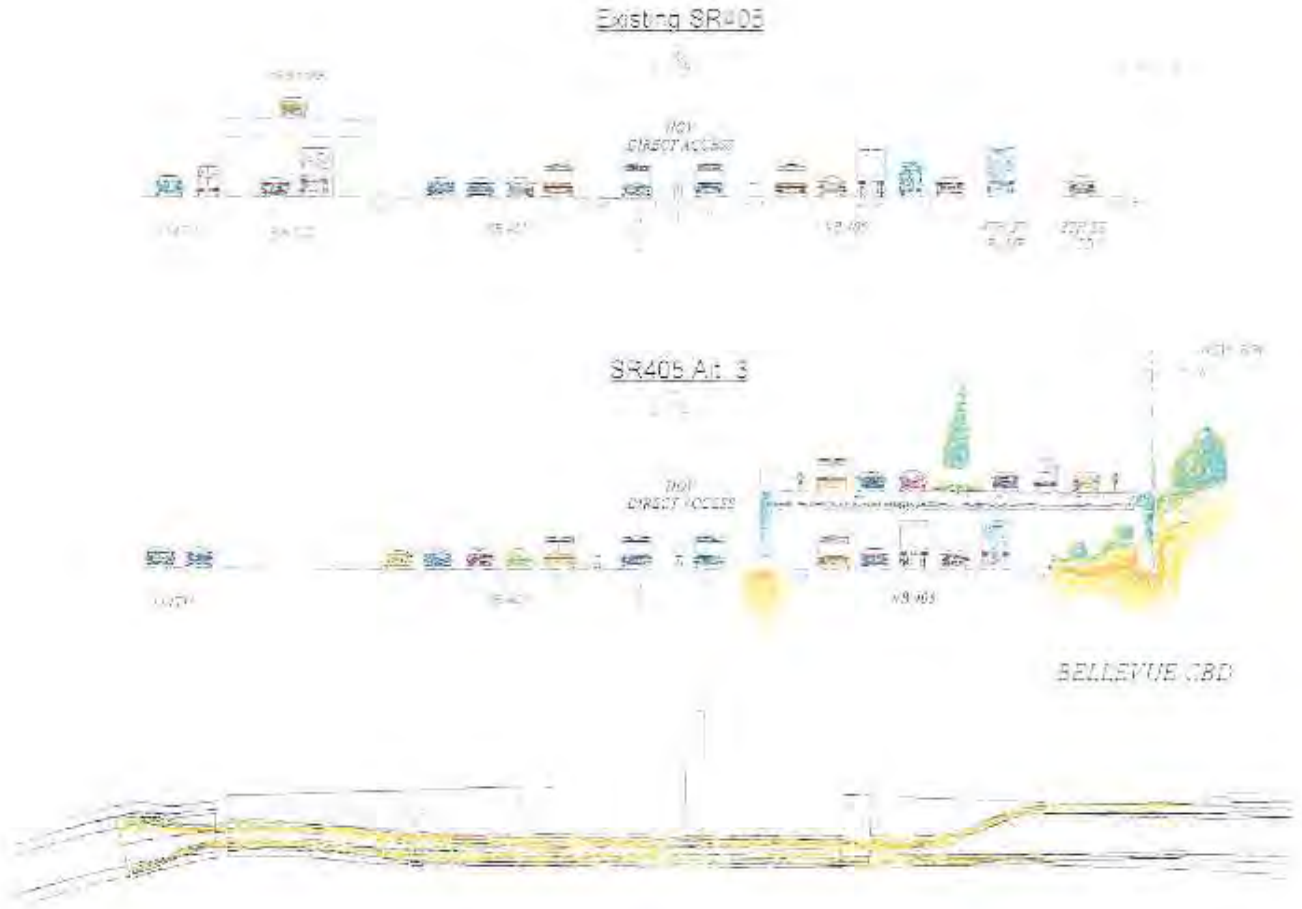
SR 405 Alt. 2 & 4



I-405 CORRIDOR PROGRAM

Roadway Section Alternatives in Bellevue

Figure E-2



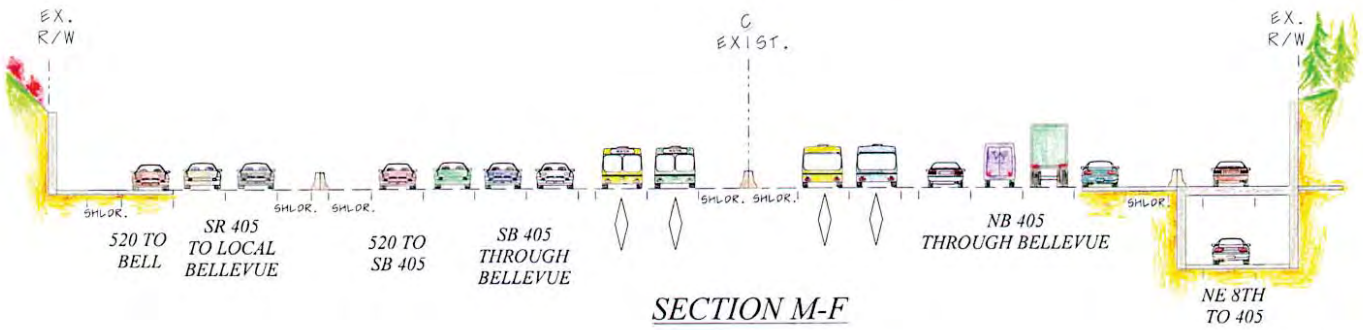


I-405 CORRIDOR PROGRAM

Roadway Section Alternatives in Bellevue

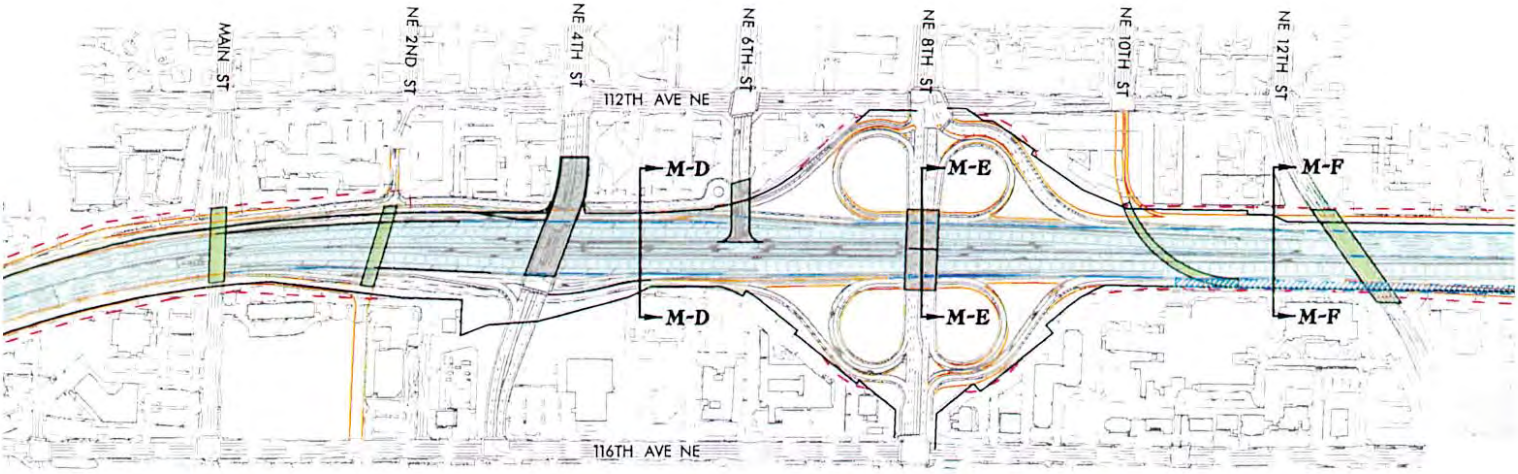
Figure E-3

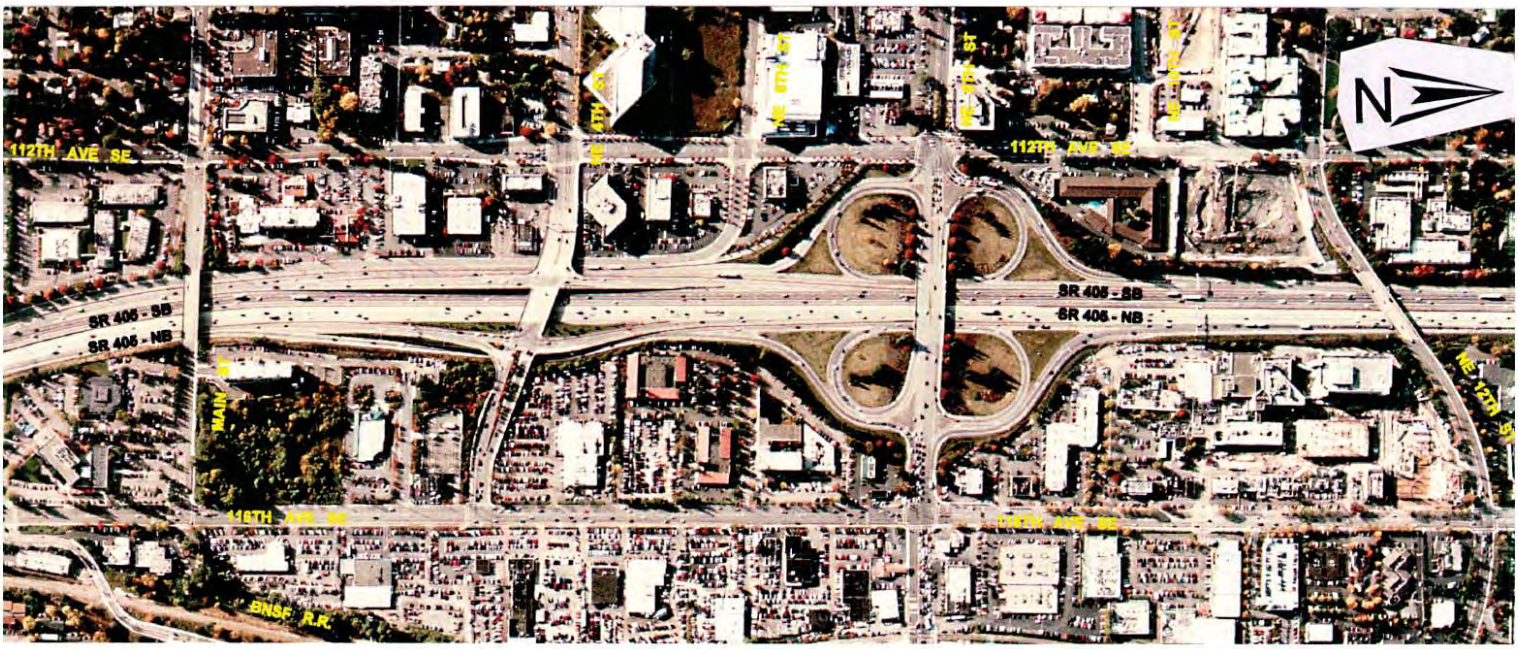
Preferred Alternative



SECTION M-F

BELLEVUE CBD
BETWEEN NE 10TH AND NE 12TH
1 / 2002





I-405 CORRIDOR PROGRAM

Roadway Sections for Alternatives in Bellevue

Figure E-3a

DAVID EVANS AND ASSOCIATES INC.



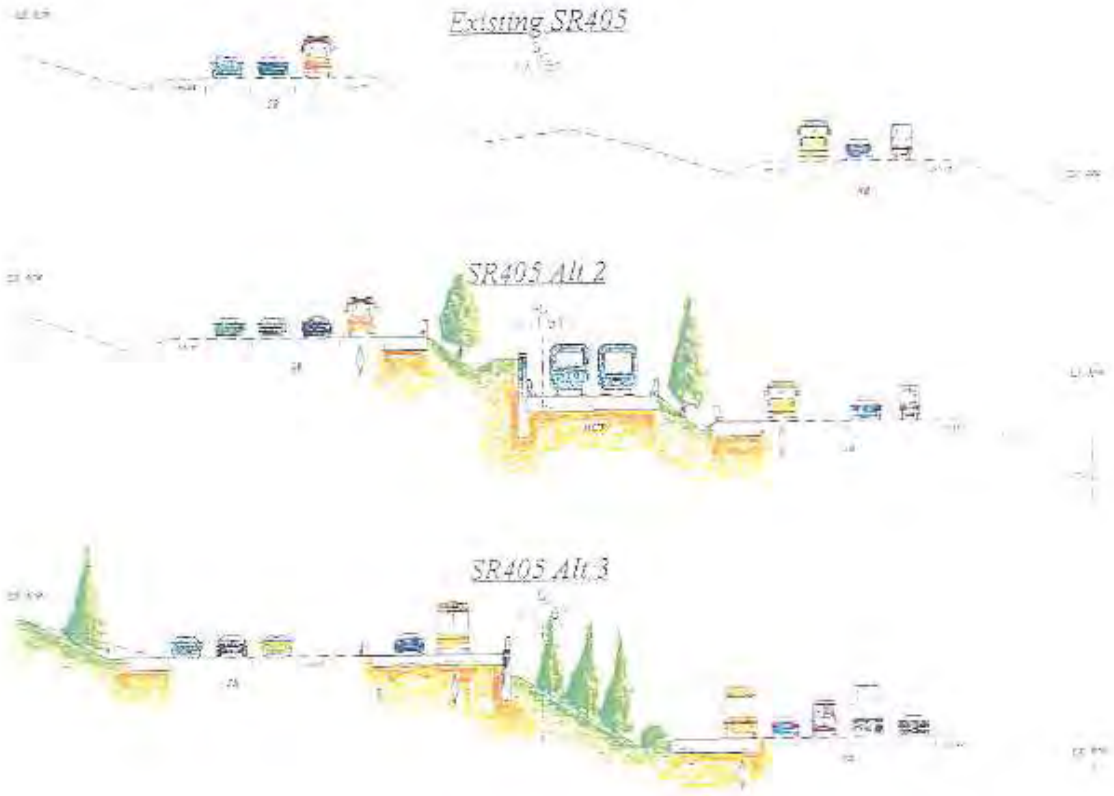
KIRKLAND BETWEEN NE 53TH AND NE 116TH



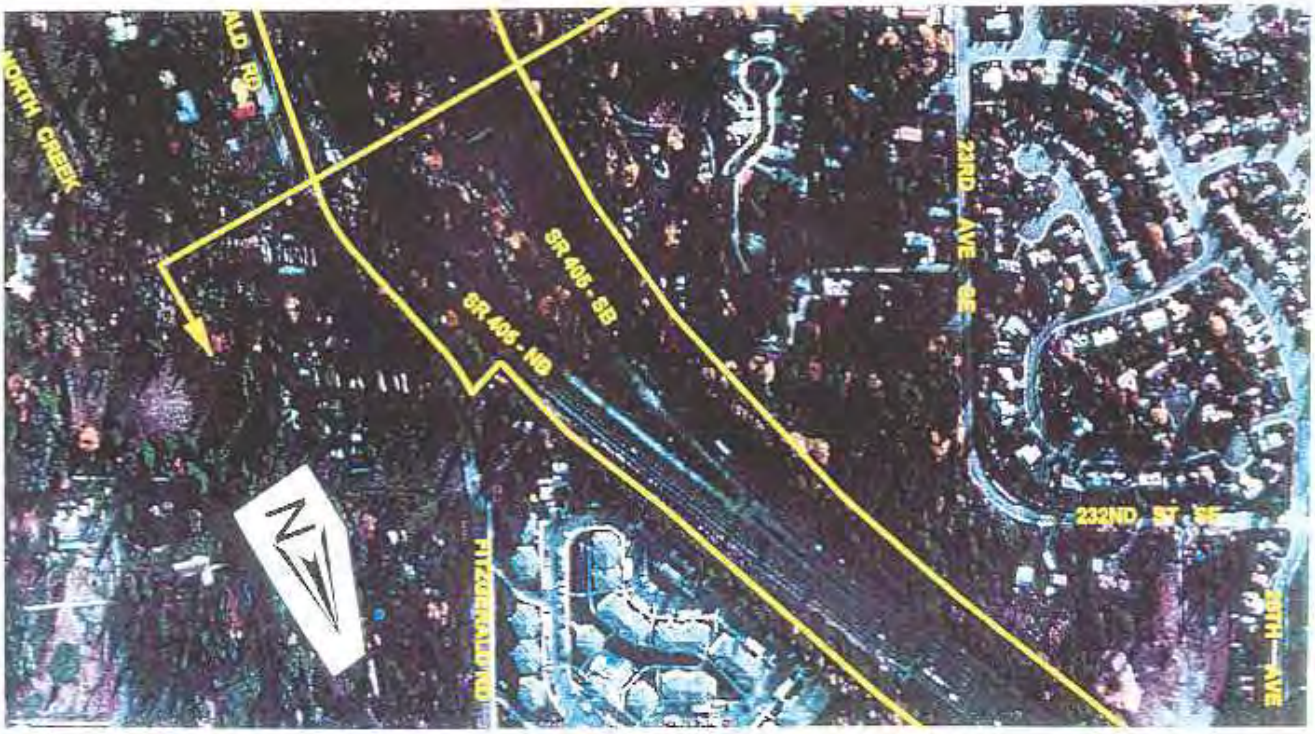
I-405 CORRIDOR PROGRAM

Roadway Section Alternatives in Kirkland

Figure E-4



BOTHELL AND NORTH OF 240TH ST SE



I-405 CORRIDOR PROGRAM

Roadway Section Alternatives in Bothell

Figure E-5



BOTHELL NORTH OF 240TH ST SE



I-405 CORRIDOR PROGRAM

Roadway Section Alternatives in Bothell

Figure E-6

APPENDIX F

I-405 Corridor Program
Agency Communications

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APPENDIX F: AGENCY COMMUNICATIONS

This appendix contains only key written communications with affected agencies concerning the I-405 Corridor Program EIS. A more extensive record of agency communications is included in the records of the I-405 Corridor Program Executive and Steering Committees, and in the Administrative Record for the I-405 Corridor Program. Both of these are on file at the WSDOT Urban Corridors Office.

As detailed in Section 6, Agency Coordination, and Section 7.2, Project Committees, the I-405 Corridor Program has benefited from an extensive agency coordination program that has involved agency representatives in issues resolution and decision-making on a frequent and on-going basis. See especially the chronology of agency and public involvement contained in Table 6-1. This approach substantially reduced reliance on formal letters as these communications have been largely accomplished through committee meetings, direct agency meetings, telephone conversations, and e-mail correspondence.

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City of Bellevue

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: City of Bellevue
Signature: Goran Sparrman
Title: Transp. Director
Date: 10/6/99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

BELLEVUE

RECEIVED

AUG 2 1 2000

EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency:
Signature:
Title:
Date:

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

City of
Bellevue

BELLEVUE'S REGIONAL TRANSPORTATION VISION

BEST SERVED BY I-405'S "MIXED MODE":

ALTERNATIVE 3

Prepared by City of Bellevue
Transportation Department

October 22, 2001

Why Bellevue's Regional Transportation Vision is Best Served by I-405's "Mixed Mode"—Alternative 3

KEY MESSAGES

- **Bellevue's Downtown—Maturing into a Truly Urban Center.** Bellevue's Downtown is the single *Metropolitan Urban Center* as defined by Vision 2020 in East King County comprised of a high-density mix of business, residential, public and cultural uses. In accordance with the state Growth Management Act, Bellevue is focusing the bulk of the new growth in downtown. In order to engage the tremendous growth *(employment rises from 35,000 to 79,000 by 2020; similarly, residential figures rise from 2,890 to 14,000)* that's coming. To best position itself for the future, Bellevue is seeking comprehensive investments in multimodal travel. The I-405 Corridor Program is one of several major mobility efforts. One clear benefit of the I-405's Alternative 3 is that surrounding Bellevue neighborhoods will realize less congestion on the local street system as more trips can be accommodate on the regional spine of I-405.
- **General Purpose Lane Needs on I-405 through Bellevue.** The I-405 Program's Alternative 3 will likely require *only one lane of general purpose travel* in only a small segment of I-405—between NE 2nd and NE 10th. On either end of this segment, 2 GP lanes will be needed in addition to collector distributor lanes to address the need for new access points throughout Downtown—again—almost half the future travel market on I-405 through Bellevue is headed into Downtown. In short, Alternative 3's general purpose lane component meets the highway demand for the City's growth curve. The *proposed Bus Rapid Transit* system operating within the I-405's HOV lane appears to be a good idea, but demand may swamp the lanes by 2020. So what's next?
- **I-405 is a Building Block, Not the Entire Solution.** The I-405 Program addresses three parts of the total mobility solution for Bellevue: (1) adding necessary general capacity to meet future demand; (2) fixing the interchange "bottlenecks" at 167/I-405; I-90/I-405 and SR 520/I-405 via new HOV-to-HOV connections with huge congestion benefits and (3) investing unprecedented levels of new transit service into the I-405 Corridor and surrounding links. While together, the combination of these improvements are expected to play a significant role in providing real incentives for folks to carpool, vanpool or bus it to their destination, Bellevue's future Downtown growth trend will require a new generation of mobility building upon the mobility platform that the I-405 Program provides—*High Capacity Transit.*
- **An Eye to the Future: Creating a High Capacity Transit East/West Fix.** Sound Transit's long-term vision calls for high capacity transit solution that connects Downtown Seattle and Downtown *Bellevue—the next highest priority for travel demand after the proposed North Light Rail line Seattle.* In summary, the I-405 Program provides near-term mobility improvements for today's growth, whereas a high capacity transit with exclusive right-of-way to ensure high speed and reliability crossing Lake Washington at I-90 and/or SR 520 will prepare Bellevue for 2010 to 2020 growth period and beyond.

BACKGROUND INFORMATION

I. Downtown Bellevue--Context

The Preliminary Preferred Alternative (PPA) adopted by the Executive Committee on January 25, 2001, included provisions for widening I-405 by up to two lanes throughout the corridor. The appropriate mix of freeway lanes passing 'through' downtown Bellevue versus freeway lanes serving downtown is based on several key findings:

1. **Downtown Travel Demand.** Nearly half, 40-50% of peak hour traffic on I-405 will be coming from or headed to downtown Bellevue in 2020.

2. **Downtown Plan Consistency.** Bellevue is updating its Downtown Bellevue Implementation Plan, which includes a substantially increased population and employment forecast within the downtown along with a recognition that improved downtown access is necessary to support it. Concentrating growth within urban centers such as downtown Bellevue is consistent with the region's growth management goals.

3. **Only One Lane Needed in Short Downtown Segment Between NE 2nd and NE 10th.** Traffic analysis conducted by the I-405 Corridor Program in collaboration with the City's Downtown Implementation Update team showed that the I-405 mainline would operate well with one additional general purpose lane in each direction.

4. **Functionality of I-405/SR 520 Interchange Key to Downtown Operations.** The I-405 Corridor Program and the TransLake Washington study have been examining a variety of new designs at the I-405/SR 520 interchange, each of which could have substantial effects on the design of I-405 through downtown Bellevue.

II. Downtown Bellevue—Conceptual Solution to Accommodate Mainline and Future Downtown Tra

The attached diagram illustrates the current proposal for the 'Preferred Alternative Development' (PAD) through downtown Bellevue. This proposal, while still conceptual in nature, has the following key elements:

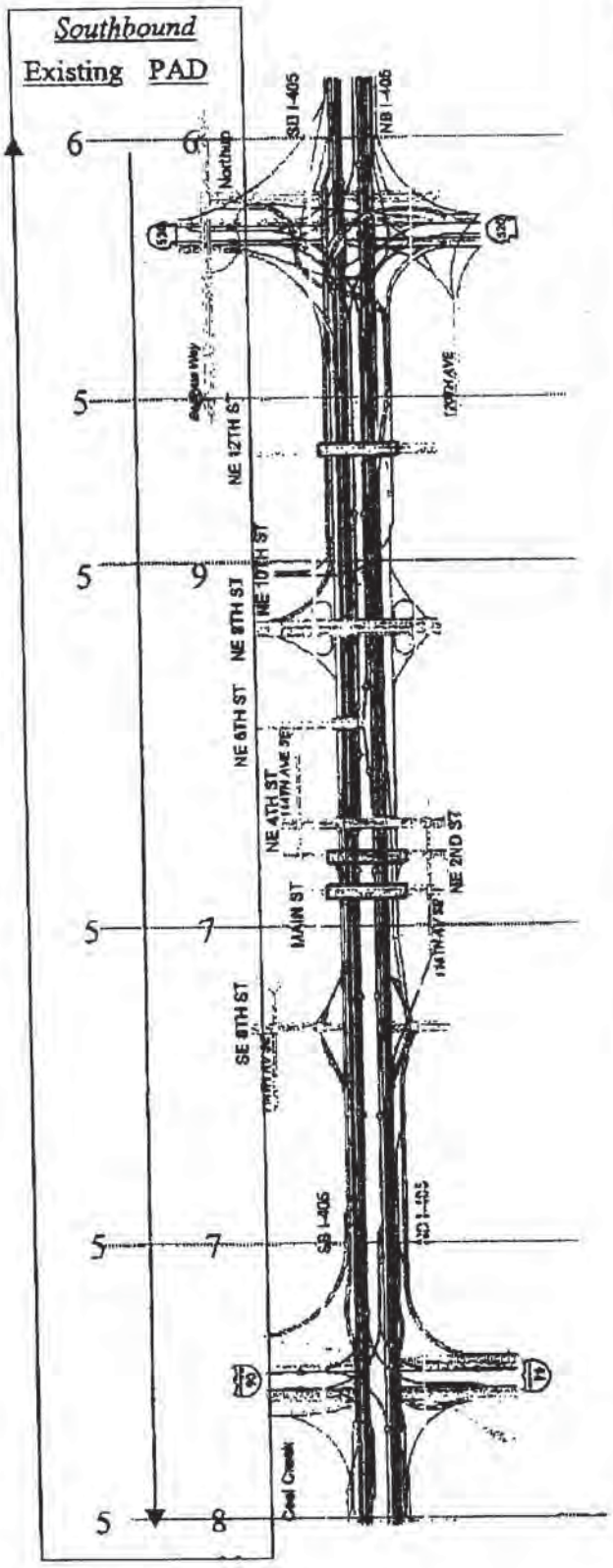
1. Addition of 2 General Purpose lanes in each direction between I-90 and NE 2nd St and NE 10th St and SR 520.
2. Addition of 1 General Purpose lane in each direction serving through traffic between NE 2nd St and NE 10th St and modification of collector-distributor lanes serving Bellevue-destined traffic- typically, 2 to 3 additional lanes will be provided.
3. Construction of new half interchanges at NE 2nd St for traffic to and from the south, and at NE 10th St for traffic to and from SR 520.
4. Provide HOV-to-HOV connections in the NW, SW and SE quadrants of the SR 520/I-405 interchange.
5. Provide HOV –to-HOV connections in the NW, NE, and SW quadrants of the I-90/I-405 interchange.

This design concept would meet the overall objectives of the Preliminary Preferred Alternative for added freeway capacity through, and access to/from, downtown Bellevue. The total number of freeway lanes serving through traffic and local access traffic would increase by a minimum of two lanes each direction, with some sections adding up to 3 additional lanes. ***Additional downtown access would be provided at NE 10th St, NE 2nd St and at Northup Way.***

III. Guiding Design Principles for I-405 Through Downtown Bellevue

The foregoing design proposal can be distilled into the following guiding principles that can be included in the system-level decision for the I-405 Corridor Program.

1. Traffic passing through downtown Bellevue can be accommodated through 2020 by the addition of one additional General Purpose lane in each direction along the I-405 mainline.
2. Local and through traffic on I-405 should continue to be separated through the judicious use of collector-distributor lanes through downtown Bellevue.
3. Additional freeway access to/from Bellevue is essential to serve the high density of trip demands, to better distribute the future growth, and to ensure downtown Bellevue traffic does not affect I-405 through traffic. Such access should be designed to efficiently distribute traffic destined to City of Bellevue arterial streets with a minimum number of new ramp connections directly onto mainline I-405.
4. Freeway access to/from downtown Bellevue can be targeted to specific origins and destinations (e.g. connections to SR 520 only) in order to better distribute the traffic demands within the corridor.
5. Grade separation (i.e. stacking) of ramps and freeway lanes should be encouraged to minimize the impacts on right-of-way and property.
6. HOV and transit access will remain a high priority within the corridor.
7. Bellevue Access Downtown will be a centerpiece for HOV/transit access at NE 6th St.
8. HOV-to-HOV connections will be provided for major movements between I-405 and SR 520 and I-90.
9. The design must accommodate enhanced arterial capacity serving downtown Bellevue, such as that currently being considered by the Downtown Bellevue Implementation Plan north-south (potentially120th St, Bellevue Way and 112th St.) to both SR 520 and I-90.



Northbound		Total	
Existing	PAD	Existing	PAD
5	7	11	13
5	9	10	18
5	8	10	17
5	7	10	14
5	8	10	15
4	8	9	16

RECEIVED
APR 08 2002

City of Bellevue
Post Office Box 90012 • Bellevue, Washington • 98009 9012

April 4, 2002

Mr. Michael Cummings
Washington State Department of Transportation
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

Dear Mike:

The City of Bellevue is pleased that the I-405 Corridor Program has succeeded in developing a consensus on a multimodal transportation vision for the Eastside that is consistent with adopted growth policies. Further, the success of this reinventing NEPA process is commendable. It proves that it is possible to streamline major projects through environmental review while including key regulatory agencies. We are hopeful that lessons learned from this process will help to streamline other environmental processes.

Bellevue concurs with the I-405 Corridor Program Preferred Alternative and Mitigation Concept (CEP), with comments. We believe the information generated through the EIS process is adequate to move forward at this time, yet we have concerns about the CEP and believe there is a urgent need to better define conceptual corridor investments.

- **Corridor Environmental Program (CEP):** We agree with the goals and objectives of the CEP and would like to ensure that future agreements address the City's issues and concerns. A key issue for Bellevue is to ensure that the CEP approach, whether based on Water Resource Inventory Area (WRIA) or otherwise, is consistent with the City's programs as a whole. We look forward to further discussion and refinement of how the CEP will relate to local environmental policies, plans, and decisions inside and outside of the I-405 corridor.

- **Refinement of Investments:** The vision established by the I-405 Corridor Program preferred alternative is an enormous step toward meeting regional growth demands. We look forward to next steps toward implementation of the Program, when components of this "programmatic" vision will be better defined. Clearly, refinement of conceptual I-405 projects will require considerable discussion, as will the appropriate phasing of these investments.

Again, we anticipate revisiting these issues in the near future as the Program progresses. We applaud the I-405 Corridor Program in its approach and conclusion. If you have questions regarding our comments please contact me at (425) 452-4338 or Bernard van de Kamp at (425) 452-6459.

Sincerely,

Goran Sparrman, Director
Transportation Department

Transportation Department • Administration • (425) 452-6856 • Fax (425) 452-2052
Leavitt Building • 301 – 116th Avenue SE • Suite 220 • Bellevue, WA 98004

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: City of Bellevue

Signature: [signature]

Title: Director, Transportation Department

Date: April 4, 2002

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- ☐ "*Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process.*" At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- ☐ "*Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations.*"
- ☐ "*Agencies will have the option to comment on elements of the project at the appropriate points in the process.*" (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures.
- ☐ "*It is not intended that concurrence means that a permit will be issued– just that the project information for the current phase is adequate.*" Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

City of Bothell

CITY OF BOTHELL

18305 101st Ave. N.E. • Bothell, Washington 98011-3499

December 8, 1999

Mr. Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104

Dear Mr. Cummings:

Enclosed is the EIS Concurrence Form for the I-405 Corridor Program. The City Council on Monday, December 6, 1999 approved and concurs with the I-405 Corridor Program.

If you should have any questions, please call me at 425-486-3256.

Thank you.

Sincerely,

Jim Thompson,
City Manager

JT/lkl

Copy: Mayor and Councilmembers
Director John Medina, Public Improvements

H:cm/worddata/thompson/1208WSDOT.doc

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: City of Bothell
Signature:
Title: City Manager
Date: December 08, 1999

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

CITY OF BOTHELL

18305 101st Ave. N.E. • Bothell, Washington 98011-3499

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: City of Bothell
Signature:
Title: City Manager
Date: 8/25/00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

CITY OF BOTHELL

18305 101st Ave. N.E. • Bothell, Washington 98011-3403

December 13, 2001

Mr. Michael Cummings, Project Manager
Washington State Department of Transportation
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

RE: I-405 Corridor Program
Preferred Alternative

Dear Mr. Cummings:

Following the I-405 project team's briefing to the Council on October 15, 2001, the City Council held public meetings on November 19, and December 10, 2001 to further discuss the proposed elements in the Preliminary Preferred Alternative (PPA). We understand that the I-405 Executive Committee approved a Preferred Alternative (PA) at the recent November 16, 2001, Executive meeting. The City Council would like to commend the Executive Committee, Steering Committee, Citizen Committee and all other interested parties and citizens who participated in this process. This two-year long process has been a very cooperative and open forum where information and updates of project development and analysis were easily accessible.

The approved PA builds on the Alternative # 3 of the Draft EIS with a mixed mode emphasis that would provide:

- Expansion of the I-405 by up to two mainline lanes in each direction
- Managed lanes up to two lanes on I-405
- Used-based pricing as part of regional strategy
- Bus Rapid Transit on entire I-405
- Study of fixed guideway HCT in core area in concert with Trans-Lake and Sound Transit Phase II studies
- Expansion of SR-167 by up to 2 lanes
- TDM Package
- Transit Expansion
- Arterial HOV priority
- HOV Lane on I-405 with direct Access Ramps
- Add Park and Ride Capacity to Match Demand
- Add Transit Center Capacity to Match Demand

- Basic I-405 Improvements
- Add Collector Distributor lanes on I-405 where needed
- SR-167 / 405 Interchange improvements
- Improve Connecting Freeway Capacity to I-405 (within one half mile from the freeway connections)

- Implement planned arterial improvements
- Expand Capacity on North-South Arterials
- Upgrade Connecting Arterial Connections to I-405
- Corridor Pedestrian and Bicycle Improvements, including long trails
- Corridor Intelligent Transportation System Improvements
- Corridor Freight Enhancements
- Preserve BNSF ROW for future transportation uses at time of rail use abandonment

With the decision of the PA, we understand that the stakeholders will be asked to review another key concurrence point as part of this national pilot program of the Reinventing NEPA process. The City will have the opportunity to comment on the PA as the third concurrence point by February 2, 2002. The Final EIS is expected to be published in March 2002.

We understand that the current environmental study is a programmatic EIS and the details of the specific projects will be examined at specific project levels. At this level of program study, the City Council has the following comments and concerns:

1. **Proposed New Interchange at Vicinity of 240th and MonteVilla Parkway:**
While the Council supports the study of the proposed new interchange in this vicinity, we will not support a direct connection, which will create cut-through traffic to any residential area. We request that the preliminary drawing of this interchange be modified to remove the line showing the western connection line. This new access is to provide improved accesses to the employment centers of the Business Park on the East side of the I-405 in conjunction with the proposed expansion of the mainline freeway and the interchanges at SR-522, NE 195th Street/Beardslee Blvd. and SR-527. We understand that WSDOT supports the study of this proposed interchange as part of the PA for I-405 but will require Federal Highway's approval of an Access Report at project level. At the October 15, 2001 Bothell City Council meeting, Mr. Craig Stone of WSDOT reinforced our understanding that this proposed interchange would not be constructed unless requested by the City of Bothell.

2. **SR 202 connection across SR 522 to 120th Ave NE:**
The City strongly supports this project. This proposed north-south arterial connection is very important to Bothell and provides a better, more direct and improved connection from the Woodinville-Redmond area to Bothell Business Park. This arterial supports the City of Bothell and Snohomish County's plans to complete a north-south arterial along 39th Avenue SE/35th Avenue SE from Bothell to South Everett, providing the only other arterial running parallel to I-405.

3. **Arterial Capacity Improvements as part of the I-405 PA:**
The City welcomes and strongly supports the much-needed improvements to numerous proposed State highways and city arterial capacity related improvements within the Bothell area. The I-405 PA must encompass integrated and interconnected transportation systems to affect a network that meets the future demand. These arterial streets must be improved to provide for adequate capacity so that our residential neighborhood streets do not become cut through routes.

4. **Other I-405 PA Programs within the City Limits:**
   We are pleased that WSDOT and other transit agencies have expressed a commitment to work closely with City officials, affected parties, businesses and neighborhoods at project level.

5. **Mitigating Conditions:**
   We are in agreement that mitigating requirements and conditions are an integral part of support for the PA. In addition to environmental enhancements with early action considerations, the City requests that neighborhood enhancements and mitigations be provided along the corridor, such as noise barriers, replanting of trees and minimizing acquisitions of additional right-of-way if at all possible. Strategic planning for State's funding packages of arterial improvements as mitigating conditions for the impacts of I-405 mainline construction shall be considered.

Thank you for the opportunity to participate with the I-405 project team members to move this forward to the completion of the Final EIS and meet the challenge of funding these large transportation investments for the 21st Century. We look forward to participating on the concurrence point of the PA over the next few months.

Sincerely,

Jim Thompson
City Manager

cc: Bothell Mayor and Council
Manny Ocampo, Assistant City Manager
Dave Zabell, Director of Public Works
Bill Wiselogle, Community Development Director
Mark Ericks, Police Chief
Marcus Kragness, Fire Chief
Ilene Frisch, Finance Director
Eddie Low, Engineering Manager
Seyed Safavian, Transportation Manager

City of Bothell

April 19, 2002

Mr. Michael Cummings, Project Manager
Washington State Department of Transportation
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

RE: I-405 Corridor Program
Concurrence Point # 3

Dear Mr. Cummings:

Thank you for briefing the City Council on the Preferred alternative of the I-405 Corridor Program at the April 8, 2002 meeting in Bothell. Your briefing was very well received and I appreciate your assistance in bringing the whole Council up to speed on this important project.

Attached is Bothell's Concurrence Point # 3. The City at their April 15, 2002 regular meeting unanimously approve Concurrence Point # 3 with comments as stated at the City's letter of December 13, 2002.

If you have any questions, please feel free to call me at (425) 486-2768, extension 4464.

Sincerely,

Eddie Low, P.E.
Engineering Manager

Cc: Dave Zabell, Director of Public Works
Seyed Safavian, Transportation Manager

Professionalism • Respect • Innovation • Dependability • Employee Accountability

City Administration
18305 101 Avenue NE
Bothell, WA 98011
(425) 486-3256
Fax: 486-2434
www.ci.bothell.wa.us

Community Dev. & Public Works
9654 NE 182 Street
Bothell, WA 98011
(425) 486-8152
Fax: 486-2489

Fire and E.M.S.
16726 Beardsley Boulevard
Bothell, WA 98011
(425) 486-1678
Fax: 486-4556

Police
18410 101 Avenue NE
Bothell, WA 98011
(425) 486-1254
Fax: 487-0650

Municipal Court
10116 NE 184 Street
Bothell, WA 98011
(425) 486-[illegible]
Fax: 486-[illegible]

H:\GROUPS\CD&PW\WORD\Public Works\Administration\Angelyna\CIP\EddieL -I405 Con#3letter.doc

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: **City of Bothell**

Signature: Manny M. Ocampo
Manny Ocampo

Title: **Acting City Manager**

Date: **April 19, 2002**

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

Comments: *Please see the attached City letter dated December 13, 2001 from Jim Thompson to WSDOT.*

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.

- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*

- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.

- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

Community Transit

RECEIVED
OCT 19 1999

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

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- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Community Transit
Signature: [signature]
Title: Director
Date: October 10, 1999

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
AUG 03 2000

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Community Transit
Signature: Jon Sidl
Title: Director, Development + Information Technology
Date: 7/28/00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

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Agency: Community Transit

Signature:

Title: Director, PTT

Date: 4/29/02

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

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ISSUES ASSOCIATED WITH THIS CONCURRENCE

I-405 Corridor study is at another concurrency point. This one is requiring CT approval of the Preliminary Final EIS. The important CT transit issues for us are:

1. Support for the northern terminus being at one of the two possible activity centers:
   - CT recognizes that the preferred alternative assumed that the northern terminus of the BRT would be at Lynnwood. This is compatible with Lynnwood's long range strategy to make the Lynnwood P&R a high-density activity center - anchored by a government complex. The bulk of CT service (85%) passes/uses the Lynnwood P&R. ST is already making improvements to this transit center including the addition of 300 spaces and a direct access ramp.
   - Snohomish County has designated the land adjacent to Ashway Park & Ride as an Urban Center. Therefore a northern BRT terminus at Ashway is worth considering. An origin and destination study may be in order during the next phase of the I-405 Corridor Study.

   Funding for a full-scale transit center needs to be included in the regional package. Please clarify how much was estimated for the northern terminus transit center, out of the $30M listed in the draft WSDOT cost estimates.

   Note that both of the locations listed above are slated for new ST I-5 HOV direct access projects. Neither allow use of the HOV lane on I-5 between the respective transit center and the I-405 HOV lane (the weave is too short). The preferred alternative includes HOV freeway-to-freeway connections to/from the north and south along I-5. These ramps would allow direct access to the HOV lanes on I-5. This functional improvement will put the *RAPID* into BRT by directly connecting the northern BRT terminus to the I-405. What portion of the FWY-FWY HOV costs estimated (WSDOT state package $249M) is associated with I-5 to I-405?

2. Canyon Park is a recognized satellite activity center in PSRC's Vision 2020; hence justifying a Canyon Park Transit Center. Please clarify how much was estimated for the construction of this transit center, out of the $30M that was listed in the draft WSDOT cost estimates. The I-405 corridor study project **also** needs to **include a transfer center at Bothell/UW campus**. The Bothell/UW campus transit station should include a pedestrian bridge that connects transfers for North Creek Business Park, Downtown Bothell and the Park and Ride lot. Specific plans for the 'transfer center' and 'transit center' need to be in the next round of engineering design drawings.

3. CT supports increasing the parking stall requirement for BRT from the initial 4,000 spaces to the 5,000 parking space level. The I-405 Corridor Study initially listed SE Snohomish County need as 800 additional P&R spaces (T.PR-44) by 2020. However the WSDOT 'Puget Sound P&R System Update Study'[1] of January 2001, indicates Canyon Park needs 600 additional spaces by 2010 and 900 additional spaces by 2020 (see table 8.1 on page 103). Please clarify how many additional P&R spaces would be allocated to SE Snohomish out of the $125M regional package noted in the draft WSDOT cost estimates.

4. Upgrading SR 527 north of I-405 is important to CT routes 105, 107 and 435. Eventually CT envisions this corridor as a candidate for Arterial HOV and possibly even a leg to the BRT. This Mill Creek leg is similar in concept to the Kent leg that is now being incorporated into

[1] Parsons Brincherhoff

the BRT scheme. Further study may reveal additional needs for HOV along this corridor, therefore CT wants **study funds for a SR 527 HOV arterial** treatment included in the I-405 Corridor Study Project.

5. Service hours. CT assumes that Sound Transit will be providing the bulk of the commuter service to the East Side from Snohomish County, e.g. all commuter hours associated with the BRT trunk service. This leaves CT to provide feeder service on local routes. At present CT is developing a service expansion plan that targets local service that could feed all potential BRT stations, i.e. UW/Bothell, Canyon Park, Lynnwood, Ashway and Mill Creek. If implemented these schemes would substantially fulfill the targeted CT's local 2/3rd transit increase by 2006 (WSDOTs estimates 21,700 revenue hours over no action by 2020 of which 2/3rd is ~14,450). Any other delivery on the ten year CT $6M service improvement package, as proposed in the draft WSDOT cost estimates, would be via feeder service to the transit center at the northern terminus.

City of Kirkland

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

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- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: City of Kirkland
Signature: [signature] JOAN MCBRIDE
Title: Councilmember
Date: 11/2/99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

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Agency: CITY OF KIRKLAND
Signature: JOAN MCBRIDE
Title: CITY COUNCIL ; REPRESENTATIVE TO EAC
Date: 8-15-00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

CITY OF KIRKLAND
Department of Public Works
123 Fifth Avenue, Kirkland, WA 98033 425.828.1243
www.ci.kirkland.wa.us

MEMORANDUM

To: Dave Ramsay, City Manager

From: Jim A. Arndt, P.E., Public Works Director

Date: June 25, 2001

Subject: CITY COUNCIL – I-405 POSITION STATEMENT

The following statements represent the position of the Kirkland City Council regarding the I-405 corridor study:

1. High Capacity Transit.
   The high capacity transit core area should extend to Totem Lake in the I-405 corridor and additional consideration should be given to high capacity transit located north of SR520. Either Rail or Bus Rapid Transit should be on a separate right-of-way.

2. Preferential lanes for transit and HOV on arterials.
   The City supports continued work with transit providers and other agencies to identify appropriate treatments for transit and HOV on arterials. These treatments may include BAT lanes, queue by-pass lanes at intersections and/or HOV lanes.

3. Direct Access for Transit and HOV to and from I-405
   The City supports HOV/transit direct access at NE 85th Street, Totem Lake at NE 128th Street bridge (with two general purpose lanes) and South Kirkland Park-and-Ride. This will require construction of new interchanges. Further study is necessary to determine whether or not Park-and-Ride capacity should be added at NE 85th Street.

4. Collector Distributor Lanes between NE 70th Street and NE 85th Street and between NE 116th and NE 124th Street.
   The City of Kirkland is supportive of collector distributor lanes such that no more than two lanes in each direction, inclusive of general purpose lanes, be added.

5. Implement Planned Arterial Improvements.
   The City supports planned arterial improvements as outlined in their CIP and 2012 Project List. They include NE 120th Street (Slater to 124th Avenue); 124th Avenue NE (NE 85th Street to NE 116th Street, three lanes); 124th Avenue NE (NE 116th Street to NE 124th Street, five lanes); NE132nd Street (100th Avenue NE to 116th Avenue NE, three lanes). These projects are on the City's 2012 Project List. Three lane improvements include one lane in each direction with a center left turn lane; five lane improvements include two lanes in each direction with a center left turn lane.

6. Upgraded Arterial Access.
   The City supports improving arterial access at NE 70th Street, NE 85th Street, NE 116th Street, NE 124th Street, and NE 132nd Street in order that general purpose, HOV, and transit may more easily access a

modified I-405. Widening necessary for improved access would include widening that may be done for HOV/transit lanes, i.e. arterial access widening would not add a lane if a lane was added for Transit/HOV.

7. Pedestrian and Bicycle Improvements.
   The City supports use of the Burlington Northern Santa Fe Railroad right-of-way from Renton to Woodinville as an integral part of alternative transportation solutions. Right-of-way acquisition for this long trail element should be a first priority and begin as soon as possible. The City also supports a crossing of I-405 via a NE 10t0h Street Ped Bridge/Emergency Access project.

8. Two General Purpose (GP) Each Direction on I-405.
   The City supports up to two GP lanes in each direction. Design should minimize right-of-way take and use cut and cover and stacking where cost effective to minimize right-of-way acquisition. Construction of appropriate mitigating measures that also promote connection of neighborhoods should be provided. Connections across I-405 for public safety should also be provided.

9. Burlington Northern Santa Fe Railroad Right-of-Way.
   The City supports preservation of the right-of-way for current and future public transportation use.

ARNDT/RAMSAY40.DOC:JAA\ln

November 15, 2001

Mr. Mike Cummings
I-405 Corridor Program
Washington State Department of Transportation
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

Subject: CITY OF KIRKLAND PREFERRED ALTERNATIVE

Dear Mr. Cummings:

The City of Kirkland, at their November 7, 2001 City Council meeting, established Alternative 3 as the Preferred Alternative to move forward for evaluation in the final Environmental Impact Statement. Alternative 3 reasserts the position taken by the City Council in June which is attached to this letter.

As a part of its support for Alternative 3, the City Council would also like the concept of managed lanes studied as a part of Alternative 3 in the final Environmental Impact Statement.

We would like to take this opportunity to express our thanks to you and all of the Executive Committee members (including Kirkland representatives, Joan McBride, Executive Committee Member and Sants Contreras, Alternate) in taking on such a complex study. For the region to see benefit from the I-405 Corridor, it is imperative that the work begun by the Executive Committee move from the consensus and study phase to working with the Legislature in adopting an implementation strategy that results in the Alternative 3 concepts becoming reality.

Sincerely,

CITY OF KIRKLAND

Larry Springer, Mayor

Attachment

ARNDT\KARGIANIS.DOC:LS\JAA\lr

Muckleshoot Indian Tribe

MUCKLESHOOT
CULTURAL RESOURCES PROGRAM

39015 172nd Avenue S.E. • Auburn, Washington 98092-9763

Phone: (360) 802-2202 • FAX: (360) 802-2242

RECEIVED
APR 02 2001

March 27, 2001

Jim Leonard, Urban Transportation and Environmental Engineer
Federal Highway Administration
711 S. Capitol Way, Suite 501
Olympia, WA. 98501

Dear Mr. Leonard,

The Muckleshoot Culture Committee and Staff have reviewed and discussed the I-405 presentation by Mike Cummings of Washington State Department of Transportation at our offices on February 26, 2001. We have many questions and concerns relating to this project, and the procedures that WSDOT is following relating to both NEPA and SEPA compliance.

Specifically, it was stated at this meeting that an overall Environmental Impact Statement of the project was not going to be drafted, instead individual documents would be written for project segments. By segmenting the analysis, a comprehension of the cumulative impacts from the project on environmental resources cannot be evaluated and will be avoided. The project is proposed to take up to 20 years and impacts are to be felt over and beyond that length of time. Alternatives were discussed, but not analyzed for potential effects to endangered species of salmon, wildlife or the potential for damaging cultural resources within the project area. In fact, it was stated that a cultural resources survey has not yet been completed, which will be required for Section 106 compliance, at a minimum.

These issues are significant, and early consultation to determine appropriate compliance strategies is central to the Tribe's resource programs. A Environmental Impact Statement with full analysis of impact to natural resources and cultural resources, incorporating studies to support environmental analyses, should be published for public review.

We understand the short timeline that you are on, but federal and state laws require analysis of potential impacts before your project continues. At this time we are requesting project footprints for all alternatives that were outlined at the meeting, including the potential for future expansion of the highway, and any other relevant information relating to the project that was not presented to us on February 26.

The Committee and Staff would like to request a follow up meeting after the information requested has been sent. It may be useful to begin discussions for a Programmatic Agreement for consultation in the near future. Please call me to set up logistics for this meeting at (360) 802-2202, extension 105. Thank you for your prompt response in our requests.

Sincerely,

Melissa Calvert

Melissa Calvert, Coordinator
Muckleshoot Wildlife and Cultural Resources Programs

cc: John Okamoto, WSDOT Northwest Regional Administrator
Michael Cummings, WSDOT Office of Urban Mobility

2200

Muckleshoot Indian Tribal Council
Office of The Chairman
39015 172nd Avenue S.E. • Auburn, Washington 98092-9763
(253) 939-3311 Fax (253) 931-8570

December 27, 2001

RECEIVED
JAN 09 2002
Office of the Secretary
Department of Transportation

Secretary Douglas MacDonald
Washington State Department of Transportation
310 Maple Park Avenue SE
P.O. Box 47318
Olympia, WA 98504

Dear Secretary MacDonald:

We appreciate your meeting with the Muckleshoot Indian Tribe on December 6, 2001, to discuss mutual areas of interest and concern. We truly believe continued meetings and communications between your office and the Muckleshoot Tribe will prove to benefit both governments on a variety of issues, not to mention the ongoing discussions necessary to formalize the Government-to-Government Consultation process.

To follow up on this meeting, below is a summary with a request for clarification on a few key matters.

1. We restate our opposition to SB6188 implementation of the Transportation Permit Efficiency and Accountability Committee and request your assistance to identify alternatives to the proposed structure and purpose. As noted in our meeting, transportation plans impact more than fisheries and we do not feel NWIFC or the CRITFC could adequately identify and address the issues of the Muckleshoot Indian Tribe.
2. We request continued updates and meetings with the Department of Transportation on both projects and policies that may impact the Usual and Accustomed areas of the Muckleshoot Indian Tribe.
3. Regarding the First Avenue Bridge project, the transfer of land from WSDOT to the Muckleshoot Tribe is contingent on WSDOT, the Port of Seattle, and the City of Seattle agreement. We would appreciate your office continued efforts to finalize that agreement.
4. State Route 164 that runs through the Muckleshoot Tribal Reservation remains a high-speed thoroughfare resulting in increased traffic safety issues. Through the hard work of many of our staff, we shared with you a recent traffic safety corridor study concluded on section of SR164. We would like to coordinate with your office on prioritizing the funding for the many recommendations that were presented, including reduced speed zone, increase number of traffic lights, walkways/sidewalks, and street lighting to name a few.
5. Interstate 405 continues to be an area of interest and concern for the Muckleshoot Tribe as we had mentioned in our meeting. The ongoing plans for expansion must include direct and sincere discussions with the Muckleshoot Tribe and WSDOT. You had recommended that we work with the 405 Executive Committee; however, it is my understanding that this committee has, for the most part, completed its

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recommendations through a number of meetings during the past 18 months. We ask to work directly with WSDOT on this project, instead of working through our mutual issues via the I-405 Executive Committee. We will work with Colleen Jollie to set these direct meetings with your staff.

SEPHAM 6. The Alaskan Way Viaduct proposed construction or repair directly impacts both fisheries and cultural/historic preservation of the Tribe. We request your assistance in updating the Tribe on the current status of the Alaskan Way Viaduct project and to work directly with the Tribe to resolve any issues that may arise from this project.

We will be forwarding our request for road signage under separate cover. We appreciate your time and effort to these matters.

The Government-to-Government Consultation process must have the attention it deserves in order for it to be successful. We fully commit to this process and look forward to continued contact and meetings with you and your staff.

If you have questions, please feil free to call our Intergovernmental Affairs Liaison, Claudia Kauffman or myself.

Sincerely,

John Daniels, Jr.
Chairman - Muckleshoot Indian Tribe

National Marine Fisheries Service

Mike C.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT PROGRAM/OLYMPIA FIELD OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

September 8, 2000

Mr. Mike Cummings
Washington State Department of Transportation
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

Re: Response to Second Concurrence Point - Interstate 405 Corridor Expansion Project

Dear Mr. Cummings:

The National Marine Fisheries Service (NMFS) appreciates this opportunity to work with the agency and citizen participants of the Interstate 405 (I-405) Corridor Expansion Project Steering Committee. Diverse early input during project planning will help ensure its quality. NMFS anticipates that the action to be defined by this planning process will undoubtedly involve a "federal action" under section 7(a)(2) of the Endangered Species Act of 1972, as amended (ESA) and eventually be the subject of interagency consultation. Therefore, NMFS believes it appropriate to evaluate the alternatives currently being developed in anticipation of applying the framework NMFS uses to assess the effects of federal actions that cause or require actions that alter habitat or habitat function essential for ESA-listed salmonids. During review, NMFS relied on the best available scientific information. While NMFS supports this process, NMFS cannot concur with the proposed I-405 project alternatives that were supported by executive and steering committees on July 14, 2000 and circulated by e-mail by on July 20, 2000 because it is not reasonably apparent that any of the currently-included alternatives will be able to satisfy the requirements of section 7(a)(2).

Previously, NMFS provided guidance to this process describing fish habitat factors to be considered in the development of alternatives. NMFS suggested that at least one alternative should address the ecological functions provided by fish habitat most affected in an urbanized and developing environment. The guidance suggested consideration of natural watershed processes including riparian and wetland habitat, floodplain function, further alteration of the hydrograph of area streams (impervious surface and stormwater management), phosphorous loading, and affirmative conservation actions.

Although the guidance provided by NMFS led to the development of another alternative, NMFS does not believe that alternative reflects either integration or consideration of the factors described in the "environment/ fish elements" section of the guidance. Furthermore, the alternative appears to stray from the project purpose and need in that it does not address traffic congestion issues. As a result, implementation of the alternative as developed likely would lead to yet another traffic capacity-increasing proposal. As described below, the effects of such a

foreseeable effect must be analyzed under the ESA. In this instance, such effects would reasonably include proposals for new traffic lanes, with their associated adverse impact on fish habitat.

The I-405 expansion project, when implemented, will have environmental influence beyond the project boundaries. The project is highly likely to cause effects that arise later in time. Under section 7 of the ESA such effects (called "indirect effects") must be analyzed in determining whether the project meets the requirements of the ESA. The guidance provided by NMFS covered elements of fish habitat that would be indirectly affected by a transportation project such as the I-405 expansion. NMFS cannot anticipate the successful completion of the required section 7 analysis unless those elements are included in the proposed alternative at this stage.

NMFS believes transit and high capacity transit components (appropriately located) of the alternatives are good starting points from which to develop proposals that have the potential to minimize effects to listed fish. NMFS believes that such proposals begin to minimize new impervious surface and further alteration of the existing hydrograph of area streams. Concerns about alteration of the hydrograph of area streams can be addressed by providing further information on the planned management of increases in total impervious area directly and indirectly caused by the project. Such information should include how WSDOT and/or local jurisdictions in the action area would manage stormwater. Appropriate treatment of stormwater through natural and engineered infiltration systems that enable evapotranspiration would be essential to minimize effects of new impervious areas. In addition, information regarding the ability of involved local jurisdictions to protect existing streams and their riparian zones against aquatic and biological degradation and how those measures are implemented and monitored is necessary.

NMFS acknowledges that many of the likely indirect effects of the I-405 project are the subject of discussions within the "Tri-County negotiations" seeking to address concerns through section 4(d) of the ESA. NMFS is committed to these discussions. However, because participation in the completed Tri-County program is anticipated to be voluntary, it would be inappropriate for NMFS to assume at this time that the indirect effects of the I-405 project will adequately be addressed through the Tri-County process.

If you have any questions, please feel free to contact Tom Gibbons of the Washington State Habitat Branch Office at (360) 753-9887 or Steve Landino, Branch Chief, at (360) 753-6054.

Sincerely yours,

Robert A. Turner
Washington Area Director

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT PROGRAM/OLYMPIA FIELD OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503
October 24, 2000

Mr. Mike Cummings
Washington State Department of Transportation
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

Re: Response to Second Concurrence Point - Interstate 405 Corridor Expansion Project (I-405)

Dear Mr. Cummings:

This correspondence supplements the September 8, 2000 response of the National Marine Fisheries Service's (NMFS) to the second concurrence point for the I-405 expansion project. While NMFS' September response conveyed substantive concerns about whether the proposed project alternatives could successfully be analyzed under the Endangered Species Act (ESA), it also appears to have had an unexpected procedural effect because of the project's status as a pilot under an initiative to efficiently fulfill the requirements of the National Environmental Policy Act (NEPA).

This correspondence is intended to address the unintended procedural issues that may remain from the September 8 response. As explained below, NMFS now "Concurs with Comments" on the alternatives selected for detailed evaluation in the Draft Environmental Impact Statement. Included in the NMFS response are comments on elements of the proposed alternatives, particularly important if timely compliance with ESA requirements is anticipated. It is my understanding that respective staffs of WSDOT and NMFS agree that this NMFS position also resolves issues raised in your September 22 letter.

As mentioned, NMFS realizes that this project has been selected by the Washington Department of Transportation (WSDOT) and its federal partners as a pilot project in its "Reinventing NEPA" initiative. As you know, WSDOT requested NMFS to participate in this "Reinventing NEPA" pilot earlier this year in order to bring any concerns related to the ESA to WSDOT officials early in project development – that being, in fact, one of the pilot project's objectives. WSDOT has been of great assistance in enabling NMFS to participate in the pilot. NMFS appreciates WSDOT's assistance and is pleased to participate. NMFS realizes that, as a pilot project, unanticipated consequences can occur as new procedures are tested, adapted and modified.

As you may recall, WSDOT officials provided to NMFS in July direction about the responses available to NMFS at "concurrence points" when participating agencies were required to make determinations about the developing scope of the project alternatives. This direction, supported by additional staff exchanges between WSDOT and NMFS, indicated that the only available options for response at this stage of the "Reinventing NEPA" pilot were to "concur" or "not concur." Indeed, the memorandum from you as Project Manager to participating agencies included a form requiring agencies to select only between "Concur" and "Non-Concur" determinations (enclosed). As discussed in its September 8 letter, NMFS' level of concern was such that it could not sustain a decision to "Concur."

On October 3, WSDOT documented alternative concurrence point response options for this project. As of October 3, NMFS understands response options for the pilot program to include:

> No Objection - Support the project and the decision being made;
>
> Concur - There is nothing in the legal mandate of the participating agency that will prevent this project from going forward;
>
> Concur with Comments - It is not the role of the participating agency to support project development, but at this point in the process it appears the procedural requirements of NEPA have been met, and the participating agency does not propose stopping the project, and will not appeal or elevate issues at this point in the decision process. Additional information may be needed to fulfill the agency's legal mandate;
>
> Non-concur - The legal mandate of the participating agency cannot be met.

Based upon this new direction and discussions with WSDOT, NMFS now understands that participating agencies can "Concur with Comments" on elements of the project, including any lack of information or lack of analysis of effects. Further, this determination can be made without prejudice toward the agency's subsequent responsibilities under other statutes. In NMFS' instance, this includes its responsibilities under the ESA.

Therefore, NMFS "Concurs with Comments" on the alternatives selected for detailed evaluation in the Draft Environmental Impact Statement.

Importantly, NMFS' response does not mean that it has determined, based upon the scope of the proposed alternatives, that it will be able to adequately analyze under Section 7 of the ESA the effects on ESA-listed fish from any of the alternatives. NMFS' "Concur with Comments" response does state its agreement that NEPA improvement process is being followed and should proceed. NMFS' comments provide further detail regarding areas where additional information would enhance environmental review of the proposed action and likely will be required to expedite timely, subsequent review under Section 7 of the ESA.

NMFS' comments are organized into substantive concerns (especially the effects of the proposed project alternatives on the habitat of ESA-listed fish), general recommendations on assessing and addressing concerns at the planning stage, and general recommendations on information needs at the planning stage. From this input, WSDOT should be able to develop a proposed action that meets both transportation planning needs and appropriately addresses ESA requirements.

Substantive Comments: Areas of concern that arise in transportation projects include the effects of the construction and utilization of those projects on the ecological functions provided by habitat conditions essential to ESA-listed fish. Furthermore, the potential for the project to result in injury or death to individual fish during and following construction and during utilization should be considered in developing the proposed action. In determining the effect of transportation projects on fish and fish habitat, agencies must analyze how the project affects the proper function of various elements of fish habitat including water quality, channel condition and dynamics, habitat access, flow/hydrology, habitat elements, and watershed conditions. Indicators of the proper function of these elements include measures of structural habitat, flood processes/floodplains, artificial barriers to salmon migration, change in

hydrologic processes such as infiltration, peak stream discharge, and baseflows, altered fluvial processes, loss of wetlands, changes in stream temperature, increases in fine sediment and streambank instability, and trends in the condition of riparian areas. Further, as much information as possible regarding listed salmon use (e.g., Puget Sound chinook) by life history stage in the project area will need to be documented and analyzed.

NMFS has conducted an initial review of best available science related to these areas of substantive concern. Based upon this review, NMFS is providing WSDOT the following citations regarding the potential effects of proposed project alternatives on listed fish. Ultimately, the consultation under Section 7 of the ESA on the I-405 project will require a response to this science in an analysis of the effects of the project on habitat essential to listed fish. To repeat, NMFS does not currently believe the scope of the proposed alternatives is sufficient to adequately address under Section 7 the adverse effects to ESA-listed fish documented by the science cited below.

Hydrologic Processes: Changes in land use from forested conditions to increasing levels of urban development (especially when total impervious areas exceed five to ten percent of the total watershed area) have been shown to adversely effect the stream hydrograph, to alter pathways at which precipitation moves from the land surface to groundwater and eventually to stream runoff, to degrade a variety of stream and biotic indicators, to widen stream channels, to employ structural stormwater treatment facilities of limited effectiveness, and to alter fluvial processes/groundwater discharge, particularly where removal of native materials occur (mining of sand/gravel) (Dunne and Leopold, 1978), (Booth, 2000), (Booth and Jackson, 1997), (Klein, 1979), (Leith and Whitfield, 2000), (May et al., 1997), (Horner and May, 1999), (Mazza and Fodor, 2000), (Fabritz et al. 1998), (Karr and Chu, 2000), (University of Washington Center for Urban Water Resources Management, 1998), (Spence et al., 1996).

Stream Temperature: Urbanization has been shown to adversely alter hydrologic relationships through the creation of impervious surfaces and the reduction of stream riparian zones. Both of these urbanization effects can contribute to elevated stream temperatures. Already, many Puget Sound summer stream temperatures currently reach high levels that may stress or kill ESA-listed salmonids (Spence et al., 1996), (Klein, 1979), (Washington State Department of Ecology 303d list), (University of Washington Center for Urban Water Resources Regional, Synchronous Field Determination of Summertime Stream Temperatures in Western Washington).

Salmon Migration Barriers: Because urbanization currently results in construction of frequent stream/wetland crossing structures, upstream and downstream salmon migration to important spawning and rearing habitats may be hindered (seasonally or by life stage) or fully blocked unless build to adequate design criteria and construction techniques (Spence et al., 1996).

Structural Habitat/Fluvial Processes: Changes in land use which alter hydraulic processes have been shown to affect stream structure as well as transport, deposition, and energy relationships (causing channel incision, channel widening, and increasing the frequency at which sediment/habitat disturbing flows occur). The result has been shown to be adversely altered instream habitat for ESA-listed fish (Spence et. al., 1996), (Montgomery and Buffington, 1993), (Montgomery et al., 1999), (Booth and Jackson, 1997), (May et al., 1997).

*Fine Sediment/Bank Instability:*Urbanization historically has caused increases in soil erosion and fine sediment in stream gravels, particularly of lower gradient streams and when impervious area approaches

20%. Stream bank instability is increasingly to levels affecting ESA-listed fish commonly when total impervious area approaches 30% (Chen, 1974) (May et al., 1997).

Riparian Areas: Traditional land use activities have been shown to decrease riparian stream side corridors in continuous length and width. Adequate riparian corridors are vital to a wide variety of ecological functions essential to fish listed under the ESA (Spence et al., 1996), (Horner and May, 1999).

Flood Processes/Floodplains: Urbanization has been shown to alter a wide array of hydrologic and habitat processes related to floods and floodplains (Dunne and Leopold, 1978).

Historic Wetlands: Traditional land use activities have resulted in the filling and draining of wetlands and reduced the hydrologic functions of many wetlands. Efforts are underway to document the historical extent of Puget Sound wetlands (Collins, 2000).

ESA-listed chinook habitat utilization: Data on habitat use by life stage in stream and lake habitats by Puget Sound chinook in the project area will need to be documented (including data gaps) in order to properly analyze the extent of project effects to Puget Sound chinook. While significant literature exists on such utilization, comprehensive coverage of the project area must be substantiated (Myers et al., 1998), (Washington State Department of Fish and Wildlife chinook escapement data, various years of record), (Warner and Fresh., 1999) (Federal Register, 2000), (Washington State Department of Fisheries and Wildlife and Western Washington Treaty Indian Tribes, 1993).

Minimization Measures: Minimizing adverse effects of on ESA-listed fish during the construction and utilization of transportation improvement projects depends on the nature and extent of those effects and the condition of the environmental baseline in the action area. While the specific nature of the I-405 preferred alternative is still being formulated and studied, the general elements to be contained in a preferred alternative are identified at this time.

A brief review of smaller transportation improvement projects that have undergone formal interagency consultation under section 7 of the ESA reveals that the following measures may be among those that could address adverse effects of the proposed action: avoiding, reducing, and/or minimizing increased impervious surfaces; mitigating the effects of altered hydrology and other effects of impervious surface; management of stormwater to maintain natural streamflow rates; protection and enhancement of upland and riparian vegetation; maintaining the recruitment of large woody debris to streams; wetland protection and restoration; preserving or restoring natural stream channels and processes; removal of listed salmon migration blockages; preserving and restoring side-channels and floodplain connectivity; and an active program to monitor and adaptively manage the effectiveness of the minimization and avoidance measures.

Recommendations: Because a preferred project alternative is not identified at this time, project recommendations are difficult to formulate. However, the proposed I-405 project description identifies that the proposal is anticipated to accommodate 200,000 new people and the associated economic growth in Puget Sound. Thus, WSDOT, Federal Highways Administration, and local government jurisdictions must realize the urbanization effects of the project must be minimized or eliminated in order to satisfy the Section 7 requirements for listed Puget Sound chinook. NMFS recommends WSDOT document data and develop within I-405 alternatives information on the specific effects to listed salmon of the project in the following areas:

- Environmental baseline conditions in the action area, especially quantifying the historic and existing extent of the 100-year floodplain and shorelines; the quantity of streams diked, leveed, ditched, culverted and buried, straightened, rip-rapped, or otherwise hydrologically modified; the condition of riparian corridors along streams, lakes, and wetlands; existing salmon barriers (human created), wetlands (including quantities ditched, drained, diked, or otherwise altered or degraded); historic and current habitat of Puget Sound chinook by life stage.

- The projected status of habitat and its use (by life stage) by Puget Sound chinook as a result of I-405 project construction and project utilization throughout the action area including the indirect effects of the project.

- The identification of when, where, how, and by what project-related anthropogenic actions the project will affect Puget Sound chinook by life stage;

- The quantity of total impervious surface and areas of grass, pasture or lawn as well as the area remaining in forest cover in the area affected by the project;

- Identifying likely areas to experience increased urban land development as a result of the project and the likely changes in total impervious, forested, and areas of quality riparian habitat associated with the development;

- Identifying effects to wetlands and their functions, the avoidance measures to be employed to protect existing wetlands; and restoration and mitigation measures addressing adverse effects of the I-405 project;

- Describing and locating recent and likely future Lake Washington salmonid restoration efforts and their qualitative/quantitative improvements to Puget Sound chinook habitat;

- Identifying source and quantity of native sand and gravel materials to be used to construct the project and the impact, if any, of mining to watershed functions that maintain Puget Sound chinook habitat;

- Evaluating infiltration potential of soils in the action area;

- Describing the geology of the action area including hydrologic and groundwater relationships and landslide or surface erosion hazards and exploring how these processes and relationships affect habitat and habitat functions required by Puget Sound chinook;

- Identifying or estimating the number, area, and location of new or expanded stream and wetland crossing structures to be created by I-405 project. Maintenance commitments (both operational and financial) to keep year round salmon passage through the new or expanded stream crossing structures should be discussed;

- Reviewing precipitation and surface water discharge data where Puget Sound chinook exist in the action area;

- Identifying any or all scientific literature data gaps and analyzing levels of confidence in scientific data and conclusions regarding environmental/listed salmon impacts of the project;

- Identifying the details of all methods used and assumptions made when addressing the above listed recommendations.

If you have any questions, please feel free to contact Tom Gibbons of the Washington State Habitat Branch Office at (360) 753-9887 or Steve Landino, Branch Chief, at (360) 753-6054.

Sincerely yours,

Robert A. Turner
Washington Area Director

Enclosure

References

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MEMORANDUM

To: Mike Cummings, WSDOT Interstate 405 (I-405) Corridor Expansion Project Manager

From: Tom Gibbons, National Marine Fisheries Service

Date: November 20, 2000

Subject: Comments on the Draft Floodplain EIS Discipline Report for the I-405 Corridor Expansion Project

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Below is a list of comments NMFS has on the above referenced report that should be addressed to improve the certainty of EIS in regards to the impact of new stream crossing structures on the environment.

While the Floodplain report provides new information than I-405 committee participants, the report lacks details to substantiate the report conclusion in Section 7 Comparison of Alternatives. Hence, NMFS request the following comments be considered and the additional information be incorporated in the floodplain discipline report.

1. In Section 7: Comparison of Alternatives, the report makes the following finding:

   "In each alternative, conventional design measures, including spanning of the floodway and replacement of flood fringe storage areas, can be used to avoid impacts. As a consequence, there is no difference among the alternative with respect to environmental impacts."

   While this may be the correct finding for the proposed project, this report does not present compelling evidence that can reasonably be interpreted to lead a person to this determination. Hence, NMFS requests that the following questions be answered and clarified in the report:

   a) Where the report states that no impacts to the floodplain will occur because stream crossing structures can fully span floodplains/floodways (depending on alternative, four to eighteen major floodplains will be crossed), please provide a detailed explanation that describes what "fully spanning floodplains/floodways" means and how this construction method will avoid impacting the floodplain and associated functions/processes.

   b) Please add a section that discusses conventional stream crossing structure designs and construction methods (include a discussion of placement of support structures, rip rap placement, instream barbs, and stream bank hardening) that are proposed to be used for the I-405 corridor expansion project (major stream crossings, not small unnamed streams). Further,

describe how these stream crossing structures may affect the floodplain and associated functions.

c) The report does not describe what type of stream crossing structures will be used to cross all of the smaller streams (identified as anywhere from an additional 35 to 180 crossings, depending on alternative) or how these structures do/do not impact the floodplain and associated functions/processes. Please describe what type of stream crossing structures will be used on small unnamed streams and evaluate how the report comes to the conclusion: "Typically, these streams would be so small that conventional design should allow for project development with no significant impacts."

d) Conventional stream crossing designs often involve the placement of rip rap around bridge support structures, bank hardening, or the placement of instream barbs at the time of construction or at a later date when a stream threatens the integrity of the structure. When this report states that all stream crossing structures can fully span streams, does this mean that DOT will agree to build sufficiently large enough stream crossing structures to not constrict the floodplain or impact floodplain functions and not employ placement of rip rap around bridge support structures, bank hardening, or the placement of instream barbs? Please explain the answer (if the answer to the question is no, then the potential effects of these activities need to be explained and addressed in the EIS).

e) If any part of the floodplain is filled, some level of floodplain function can presumably be thought to have been lost. The report states this function can be replaced. Hence, the report determines I-405 avoids impacts to floodplains. This statement goes against common sense because replacement does not constitute avoidance of impact to floodplains. Further, if lost floodplain functions need to be replaced, the EIS should evaluate where the floodplain is lost, how much, this area's specific function to physical watershed processes and interaction to fish and fish habitat. Only then can we have an understanding of what floodplain functions were lost (and where) and how work can appropriately "replace" lost floodplain area/functions.

f) A floodplain is a geomorphic feature that consists of both a surface and subsurface component. As a result, a stream crossing structure constructed in the floodplain of a stream then can affect either floodplain component. This report fails to evaluate these issues. For example, the increased temporal effects of placing bridge support structures in a floodplain are not addressed, nor are the potential effects on hyporheic zone functions.

Further, just because a stream's floodplain may be constrained now by human structures (levee/dike/piped underground) does not mean that a proposed stream crossing structure will not impact the recovery of functions of the floodplain that are currently degraded. For example, human structures that

control (degrade) the stream floodplain and its associated functions may fail and not be replaced, a restoration project may remove a structure or acquire development rights in the floodplain, or an entity may make certain Endangered Species Act Habitat Conservation Plan agreement in the future to improve floodplain functions to aid listed species. As a result, any new I-405 stream crossing structures may impact the floodplain in the future in a manner that is not currently clear.

Hence, the report needs to evaluate how stream crossing structures may contribute to overall floodplain degradation and impact long term efforts to recover floodplain functions as time progresses. This could be accomplished by exploring these situations and documenting how and where bridge structures encroach on the floodplain, its function, and whether or not if these structures impede the recovery of floodplain function in the long term.

g) Land use changes upstream of a stream crossing structure can change hydrology over time and hence compromise the integrity of a stream crossing structure due to increased stream discharge. The report does not assess or describe how planned land use changes (200,000 new people and 130,000 new businesses on the east side of Lake Washington are part of the purpose and need of this project) might alter a watershed's hydrology and impact the longevity of existing and proposed stream crossing structures. This is and area of report deficiency.

2. Please provide a graphic that shows the difference (include definitions) between the terms floodplain, floodway, flood fringe (include source of information used to construct this graphic). Consistent use of these terms according to the graphic and definitions provided are a must throughout the EIS document.

3. Please add a section that discusses the natural watershed interactions between stream hydrology and the floodplain, floodway, flood fringe. Also, please discuss how floodplain, floodway, flood fringe maintain physical watershed processes and benefit fish and fish habitat (emphasis towards Chinook). This will aid the layman and scientist when they evaluate any impacts new stream crossing structures may have on the environment.

4. While the report has a table that summarizes the location of new stream crossing structures and possible fill/replacement, the reader is left not really getting a good feel for how these proposed stream crossings interact with the floodplain. Please show a diagram that shows the relative position of proposed project stream crossing structures in relation to the floodway, flood fringe and 100 year floodplain (including No Action) for each alternative.

5. For all alternatives (including no action), quantify by stream (or estimate if not known) the acreage of floodplain lost and volume of fill placed (in many places, the report states flood storage may/can be replaced) and the total estimated

volume of fill that will need to be used to construct these stream crossings. This analysis should also extend to small unnamed streams.

6. Please provide detailed information on what type of projects are envisioned to be implemented that would mitigate for any floodplain, floodway, and/or flood fringe area and function lost. Further, please describe how these project(s) replace or improve lost floodplain function. This an area of report deficiency.

7. The current status and condition of floodplains (streams straightened, filled, leveed, diked, natural condition, constricted, re-located, piped underground, etc.) is not analyzed or discussed anywhere in this report. Nor does the report quantify the number, type, and details of existing stream crossing structures that exist in the project study area. If any reader of the report is to get a good sense of the existing floodplain condition in the study area, this information must be known. Otherwise, we don't really know if the replacement of lost floodplain functions due to the construction of new stream crossings maintains critical floodplain functions and fish habitat. As a result, this is an area of report deficiency.

8. For all proposed stream crossing structures, please describe how stormwater will be managed and where will it discharge to.

9. The study does not evaluate where or how induced land development may impact floodplains. As a result, this is an area of report deficiency.

10. The document does not discuss how maintenance activities of proposed new stream crossing structures or roads are to be done and does not evaluate the potential effects maintenance may have on floodplains and floodplain function (e.g. digging out stream substrate stream crossing structures, connecting streams to road ditchlines). As a result, this is an area of report deficiency.

11. The report includes no data on historical protective or maintenance efforts on existing I-405 stream crossing structures or specifics regarding these stream crossing structures. This information would be helpful in determining how conventional stream crossing structures and floodplains interact and aid in the choice of appropriate stream crossing structures for the proposed project at hand.

12. The proposed project seeks to enhance the size of an existing I-405 transportation system. Hence, this project proposes to extend the temporal effects of I-405 footprint to floodplains. The report does not identify/describe existing I-405 stream crossing structures and does not evaluate how these structures may be impacting floodplains or if the structures will require protection from future erosion or stream migration. This makes it impossible to understand whether or not the existing I-405 system (including related arterials) currently impacts floodplains and floodplain functions. This is an area of report deficiency.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL M
HABITAT PR
510 Desmon
LACEY, WA

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ▶ 2
To CHRISTINA M From Jim LEONARD
Dept./Agency Phone #
Fax # 206 464 6084 Fax #
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Novembe

Daniel M. Mathis
Division Administrator
Federal Highway Administration
711 South Capitol Way, Suite 501
Olympia, Washington 98501

Re: Endangered Species Act Consultation on I-405 Corridor Program

Dear Mr. Mathis:

The U.S. Department of Transportation, through the Federal Highway Administration ("FHWA") and Federal Transit Administration, recently issued a draft programmatic environmental impact statement ("DEIS") on the I-405 Corridor Program pursuant to the National Environmental Policy Act ("NEPA"). The Washington State Department of Transportation ("WSDOT"), King County Department of Transportation, and Sound Transit are co-lead agencies. The National Marine Fisheries Service ("NMFS") has been involved from an early stage of the planning process, pursuant to WSDOT's designation of the I-405 Corridor Program as a "Reinventing NEPA" pilot project. NMFS appreciates WSDOT's efforts to involve NMFS, and looks forward to continued participation in the NEPA planning. NMFS will submit substantive and detailed comments regarding the DEIS before the October 24, 2001 deadline.

NMFS pointed out in its October 24, 2000 response to the second concurrence point, the obligations presented by the Endangered Species Act ("ESA") are distinct from those of NEPA. Throughout the planning process, as exemplified in NMFS comments to the second concurrence point, NMFS sought to ensure the appropriate consideration of the effects of I-405 corridor expansion on salmonids and their habitat resources. NMFS expressed concerns regarding the adequacy of the DEIS to consider and address potential impacts of the I-405 Corridor Program to fish listed under the ESA. The response to NMFS concerns has been that issues regarding the effects of the corridor expansion program will be better identified and addressed at the project scale. Nevertheless, the proposal of a programmatic action through the NEPA process naturally begs for a programmatic approach to the assessment, avoidance, minimization and mitigation of the program's effects on affected resources. Accordingly, NMFS requests that FHWA initiate formal ESA § 7 consultation on the impacts of the program as a whole as soon as possible and prior to publishing a Record of Decision.

The ESA § 7 interagency consultation process is the means set up by law to evaluate the impacts of federal actions on imperiled species. NMFS understands that FHWA intends to pursue individual ESA consultations on each of the scores of distinct projects that make up the corridor expansion program. This approach would involve the preparation

of potentially hundreds of Biological Assessments creating extreme burdens on both FHWA and NMFS to accomplish hundreds of individual interagency consultations, increasing the possibility of inappropriately disparate approaches to minimizing effects on listed species. Furthermore, engaging in these many individual consultations would be contrary to efficiencies sought in the creation of the Reinventing NEPA pilots in the first place. Finally, this approach fails to recognize the importance of consulting on the overall program as well as individual components and ill serves the ESA's broad objectives of protecting and recovering imperiled species. (See, Pacific Rivers Council v. Thomas, 30 F.3d 1050 (9th Cir. 1994); court concluded that the Forest Service must seek ESA consultation on overall forest management plan as well as individual projects).

* need guide from AG office

NMFS believes that the ESA requires a full evaluation of the I-405 Corridor Program on a programmatic basis. Once an alternative is selected from the options presented in the DEIS, the overall direction of the project will largely be determined. NMFS and the planning agencies will have lost the opportunity to make decisions about how to avoid and minimize overall program impacts to ESA-listed species. Moreover, delaying ESA evaluation until after a programmatic decision has been finalized presents the risk that NMFS will determine that an individual project cannot be made consistent with the ESA after the planning agencies have moved ahead with contracts, planning and construction. NMFS believes that programmatic consultation is necessary to avoid unwelcome surprises later in the process. Indeed, failure to move forward with programmatic formal consultation may jeopardize NMFS' ability to concur with agency decisions at later concurrence points in the process.

Accordingly, NMFS is requesting that FHWA initiate formal ESA consultation with NMFS on the I-405 Corridor Program at the earliest possible time. Such programmatic consultation will facilitate consultation on the individual projects that make up the program and ensure a suitable integration of the environmental mitigation program presently under development by WSDOT.

If you have any questions or comments, please do not hesitate to contact me, or David Hirsh of my staff at (206) 753-9598.

Sincerely,

Steven W. Landino
Washington Habitat Branch Chief

APR 15 2002

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
HABITAT PROGRAM/OLYMPIA FIELD OFFICE
510 Desmond Drive SE/Suite 103
LACEY, WASHINGTON 98503

April 5, 2002

Michael Cummings
Washington State Department of Transportation
401 Second Ave, Suite 300
Seattle, Washington 98104-2862

Re: I-405 Corridor Program Concurrence Point 3

Dear Mr. Cummings:

National Marine Fisheries Service (NMFS) is a participant in the I-405 Corridor Program Reinventing NEPA Pilot. We have been asked to concur with the major elements of the I-405 Corridor Program Preferred Alternative and with the Corridor Mitigation Concept. NMFS concurs with the I-405 Corridor Program, with the comments identified below.

NMFS understands that under the Reinventing NEPA process, "concurrence" is a formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process. Further, "concurrence" means that the project may proceed to the next phase without modification, and the project information for the current phase (of the Reinventing NEPA process) is adequate. Concurrence does not mean that the project will be permitted as proposed. The major elements of the Preferred Alternative and the Corridor have been presented as a programmatic environmental review. The information presented is appropriate for programmatic environmental review under NEPA. We agree with WSDOT's representations that individual and groups of projects comprising the preferred alternative, including projects to address environmental effects, will be subject to further environmental review, and change, as projects approach design and construction over the next 20 years.

In concurring at Point 3, NMFS wants to reiterate a basic issue that requires emphasis in the context of the Reinventing NEPA process. WSDOT has informed and assured NMFS that environmental planning for the I-405 corridor as a pilot under the Reinventing NEPA process was meant to be programmatic, not project specific. As such, the EIS was not meant to study the environmental effects of the proposed I-405 Corridor Program at the project level. This process was not meant to identify and allocate specific environmental responses to avoid, minimize, and reduce specific effects. Accordingly, NMFS determined that the PFEIS provides sufficient information for this phase of the Reinventing NEPA process.

For NMFS, two fundamental considerations support concurrence at point 3: programmatic Interagency Consultation for I-405 Corridor Program under the ESA, and further development of the Corridor Mitigation Concept. As we have previously written, NMFS anticipates that projects comprising the I-405 Corridor Program will involve "Federal actions" creating a nexus for Interagency Consultation under section 7(a)(2) of the Endangered Species Act of 1973, as

amended (ESA). Between Concurrence Points 2 and 3, NMFS met with the Federal Highway Administration and WSDOT to discuss and begin planning for eventual Interagency Consultation. Those discussions were very beneficial. The agencies generally agreed that a programmatic approach to Interagency Consultation would enable planning for the effects of I-405 Corridor Program projects on ESA protected species, building on the concepts discussed within the I-405 Corridor Program.

In the time since Concurrence Point 2, WSDOT developed and circulated iterations of the draft proposed Early Action Mitigation Process. NMFS reviewed and commented on the draft proposed process to identify both the promise and shortcomings of the proposed process. Through discussion, WSDOT assured NMFS that the proposed Early Action Mitigation Process was neither an attempt to avoid traditional mitigation sequencing, nor a rationale for substituting convenient, less expensive conservation measures for harder or more expensive ones. While NMFS has determined that information is sufficient for Concurrence Point 3, the record should reflect that the Early Action Mitigation process remains a work in progress. Issues that remain to be resolved include the development of a method of accounting for project effects and allocating mitigation responses of appropriate value, a process for screening mitigation projects identified as responses to I-405 project effects, and further consideration of a more useful definition of "unavoidable" project effects.

NMFS supports WSDOT's commitment to a mitigation concept that accords with traditional mitigation sequencing (avoiding, minimizing, rectifying, and reducing environmental effects), before resorting to compensating for effects of projects. Knowing in advance that some project effects are unavoidable and will be best addressed by Early Action mitigation, the process must incorporate a method of assuring that environmental effects are appropriately addressed by the intended mitigation measures. In addition to a method for accounting, the process would be strengthened by the inclusion of a screening process that contained, among other criteria, a way of sorting out those mitigation projects already under consideration by another responsible party. The screening process would thereby avoid "double crediting" of a single mitigation project for two separate sets of environmental liabilities. Finally, the trigger for the application of Early Action Mitigation will be identification of "unavoidable" effects. NMFS disagrees with the definition of "unavoidable" that WSDOT cites from the State Alternative Mitigation Guidance (unavoidable effects are those that can only be avoided by not doing the project at all). NMFS' experience from Interagency Consultation under ESA section 7 is that project level effects can frequently be avoided through minor changes in an underlying construction action. These changes might involve little more than altering the planned time, manner, or place in which the activity would occur. Again, as we have previously written, the Early Action Mitigation Process would benefit by the description of specific criteria that render effects unavoidable (*e.g.* where avoidance would be impracticable for lack of land-use jurisdiction at the site, lack of space in the right-of-way, etc.).

Finally, the introduction of the draft Process calls for achieving a "greater net environmental benefit than traditional compensatory mitigation." We agree that this is an admirable goal for

most environmental planning. But as we previously expressed, NMFS has no basis in the ESA, its implementing regulations or policies, for relying on the proposed "net environmental benefit" standard as a measure of ESA compliance or the conservation of salmon. Accordingly, we would suggest the Early Action Mitigation Process proposal generally describe, or at least incorporate by reference, the various environmental requirements the process seeks to satisfy.

NMFS Washington Habitat Branch seeks to assist WSDOT in any feasible way to ensure the success of the I-405 Corridor Program in meeting its stated purpose and need while appropriately conserving the region's ESA listed salmon and their habitat. If we can be of any assistance, please do not hesitate to contact David Hirsh in the Lacey, WA. office at (360) 753-9598.

Sincerely,

Steven W. Landino
Washington Habitat Branch Chief

City of Newcastle

August 22, 2000

RECEIVED
AUG 2 - 2000

Mr. Mike Cummings, Project Manager
WSDOT Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

Dear Mr. Cummings,

Thank you for providing the City of Newcastle with an update on the I-405 Corridor Program Draft Environmental Impact Statement (EIS) Alternatives. We understand that you and Don Samdahl discussed the alternatives with City staff on August 9. The City is concerned about the possible expansion of major north-south arterials in the study area and does not support any alternative that includes the expansion of Coal Creek Parkway to 6 or 7 lanes through Newcastle.

As an Agency with Jurisdiction under NEPA, the City of Newcastle does not concur with the Draft EIS Alternatives proposed by the I-405 Corridor Program, as in Exhibit A dated July 20, 2000. The City would concur with the Draft EIS Alternatives if expansion of Coal Creek Parkway to 6 or 7 lanes through Newcastle were removed from all alternatives.

While we understand the need to study the benefits of an expanded arterial system and we do support operational and intersection improvements to major arterials, we have serious concerns about widening Coal Creek Parkway to 7 lanes through Newcastle. We would like to take this opportunity to share with you recent actions by the City of Newcastle, and how the7-lane alternative is incompatible with our city's future and its environment.

- Through most of Newcastle, Coal Creek Parkway is now a rural, 2-lane street. The City of Newcastle Comprehensive Plan identifies Coal Creek Parkway as the City's only principal arterial, planned as a 5-lane roadway. After Newcastle incorporated in 1994, we went through considerable public education to gain acceptance for the widening of Coal Creek Parkway to 5 lanes. We understand the need to accommodate the traffic from outside our City that accounts for 85 percent of the traffic volume on Coal Creek Parkway. However, we would have serious difficulty asking our residents to expand their only principal arterial even more. Coal Creek Parkway runs through the center of Newcastle, and so safe access from neighborhood collectors, pedestrian access across Coal Creek Parkway, noise, and environmental issues are significant community concerns.

CITY OF NEWCASTLE
13020 S.E. 72nd Place, Newcastle, Washington 98059-3030
Fax: (206) 649-4363 Telephone: (206) 649-4444

- Last year, the City of Newcastle received a Fiscal Year 2000 grant from the State Transportation Improvement Board for $7,875,000 for Phase I widening of Coal Creek Parkway to 5 lanes. This year, we received another Fiscal Year 2001 grant for $7,178,000 for Phase 2 widening. Local match requirements will increase the total investment for both phases to over $21,000,000. Completion of Phase 2 will result in the widening of Coal Creek Parkway through almost the entire length of the City of Newcastle. We would expect that such a major expansion would have at least a 20-year life cycle as a public investment.

- The citizens of Newcastle were heavily engaged with the development of the design and mitigation of impacts for the widening of Coal Creek Parkway to 4 or 5 lanes. We made a commitment to the community that Coal Creek Parkway will be developed as a community boulevard, improving access, safety, and reducing noise, while accommodating the high volumes of through traffic.

- The City of Newcastle Parks, Trails and Open Space element of the Comprehensive Plan identifies expansion of Lake Boren Park around Lake Boren and adjacent to Coal Creek Parkway. We have received grant funds of $200,000 from King County Conservation Futures for park expansion. Park expansion on the east side of Lake Boren is a unique opportunity to provide a linear park and trails for bicycles and pedestrians, just slightly away from the Coal Creek Parkway roadway. Widening Coal Creek Parkway to 7 lanes would eliminate these community amenities, violate provisions of the King County Conservation Futures grant and invalidate prior investments recently made by the City on behalf of our community.

- Coal Creek Parkway through Newcastle is severely constrained by environmental conditions. We recognize that it is difficult in a large regional study such as the I-405 Corridor Program EIS to identify all of the local environmental constraints. East of the existing 2-lane right-of-way (from north of SE 79th Place to south of SE 84th Way) there is a large rock outcropping, with new and existing neighborhoods behind the rock. To the west are Lake Boren and its associated Class 1 wetlands, designated a fish and wildlife conservation area in Newcastle's Comprehensive Plan, and the soon-to-be expanded Lake Boren Park. Widening Coal Creek parkway beyond 5 lanes would encroach on Lake Boren, the Class 1 wetlands and the park. Even widening of Coal Creek Parkway to 5 lanes reaches such steep slopes that driveway connections onto the Parkway are no longer feasible.

- Widening of Coal Creek Parkway beyond 5 lanes could significantly impact the salmonid-bearing Boren Creek and its associated riparian areas and wetlands, another fish and wildlife conservation area in Newcastle's Comprehensive Plan. Boren Creek is a tributary of May Creek, also a designated fish and wildlife conservation area, which is bridged by Coal Creek Parkway and feeds into Lake Washington. May Creek near its mouth may constitute habitat for threatened chinook salmon. King County identified May Creek as a stream that once contained a chinook salmon run.

- On April 4, 2000, the City of Newcastle adopted the Community Business Center/Lake Boren Corridor Master Plan (CBC). The circulation element of the Master Plan includes policies and implementation projects to develop a downtown street network and improve facilities and conditions for pedestrians. However, even with improvements to the network, Coal Creek Parkway remains Main Street for the center of the community of Newcastle. We view a 7-lane arterial as incompatible with community priorities for a pedestrian-friendly downtown for Newcastle.

- Sound Transit's Community Connections Program, as identified in *Sound Move*, provides for a transit center in Newcastle. The transit center is included in the CBC Master Plan and the City's 2000 Transportation Improvement Program. When the CBC Master Plan is fully implemented, the transit center in the middle of Newcastle's central business district will serve over 2,000 multi-family residential units within a short walking distance. Even now, multi-family residential units and retail stores are located on both sides of Coal Creek Parkway. The CBC Master Plan anticipates adding over 50 acres of new, mixed-use development, all within the central business corridor. A 7-lane arterial would pose a significant barrier for pedestrians and transit users, as well as a major hindrance to the development of a cohesive community focus to the central business district.

We respectfully request that you remove expansion of Coal Creek Parkway to 6 or 7 lanes through Newcastle from any alternatives in the I-405 Corridor Program Draft EIS. We also invite you, or any members of the I-405 Corridor Executive and Steering Committees to come and visit our city to better understand the issues to which we refer in this letter. We are a relatively new city. For this reason, we expect that planning activities and projects in Newcastle are not well known outside of Newcastle. Andy Takata, our City Manager, or any of the members of our City Council, would be happy to provide the tour.

Sincerely,

Sonny Putter, Mayor
City of Newcastle

Gary Adams, Councilmember
City of Newcastle
Member, I-405 Corridor Program
Executive Committee

Enclosure: I-405 Corridor Program EIS Concurrence Form

Copies: Andy Takata, City Manager
Newcastle City Council
John Okamoto, WSDOT Northwest Regional Administrator
I-405 Corridor Program Executive Committee

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: **City of Newcastle**

Signature: Sonny Putter

Title: **Mayor**

Date: **August 22, 2000**

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Please see attached letter

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

August 7, 2000

Mr. Mike Cummings
Washington State Department of Transportation
Office of Urban Mobility
410 Second Avenue, Suite 300
Seattle, WA 98104-2862

Dear Mike:

Re: I-405 Corridor Program EIS Alternatives

As you are aware, the City of Newcastle is proceeding with plans to add one additional lane in each direction on Coal Creek Parkway to create a four-lane highway section. The City has received some information on proposals to consider adding even more lanes to Coal Creek Parkway as an alternative in the I-405 Program EIS.

We are unclear at this point how seriously this option is being considered and are concerned about how this alternate would fit with the current plans for Coal Creek Parkway expansion. We are also concerned about how far this option has progressed with little City involvement. Were the details of this proposal discussed with the City's I-405 Corridor Program representative? Please respond to Andy Takata, City Manager or me to clarify the status of the 6 to 7 lane Coal Creek Parkway expansion concept.

Sincerely,

James C. Walker

James C. Walker
Public Works Director

CITY OF NEWCASTLE
13020 S.E. 72nd Place, Newcastle, Washington 98059-3030
Telephone: (425) 649-4444 Fax: (425) 649-4363

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: City of Newcastle

Signature:

Title: MAYOR

Date: 4-5-02

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*
- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

I-405 Corridor Program – Concur with Comments - Point 3

Following are the comments of the Newcastle City Council:

The City of Newcastle requests that a project-level analysis be conducted of the impacts of I-405 expansion on Newcastle's East/West arterials and connectors, and that mitigation be implemented for identified impacts.

CITY OF NEWCASTLE
13020 S.E. 72nd Place, Newcastle, Washington 98059-3030
Telephone: (425) 649-4444 Fax: (425) 649-4363

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -

The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: City of Redmond
Signature: [signature]
Title: Transportation Manager
Date: 2/9/2000

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Puget Sound Clean Air Agency

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Puget Sound Clean Air Agency
Signature: John K. Anderson
Title: Senior Engineer
Date: 10/6/1999

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

RECEIVED
JUL 24 2000

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Puget Sound Clean Air Agency
Signature: John K. Anderson
Title: Senior Engineer
Date: July 21, 2000

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Puget Sound Regional Council

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
OCT 14 1999

Date sent: September 29, 1999

Concurrence Point: 1. *Purpose and Need -*
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: **Puget Sound Regional Council**
Signature: Kirby Workman

Title: **Director, Transportation Planning**
Date: **October 12, 1999**

Concur

Note: concurrence is with understanding of Steering Committee discussion regarding meaning of "...reduce foreseeable traffic congestion...", as noted above in first line of need statement. Understood meaning is that congestion reduction expectations are realistically comparing only projected future corridor congestion levels for alternatives to be studied; quite distinct from a reduction below "today's" actual congestion level (nice dream, unrealistic objective).

Non-concur (Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

cc: Bob Edwards, PSRC Vice President & Corridor Rep.
Pete Beaulieu, PSRC
Mary McCumber, PSRC

Puget Sound Regional Council
PSRC

RECEIVED
JUL [illegible] 00

July 28, 2000

Michael Cummings
Washington State Department of Transportation
Office of Urban Mobility
401 Second Ave. S., Suite 300
Seattle, WA 98104-2862

Dear Mr. Cummings:

The Puget Sound Regional Council is pleased to participate as a Steering Committee member of the I-405 Corridor Program. In this important role, and as the designated Metropolitan Planning Organization (MPO) under federal transportation planning law (Transportation Equity Act for the 21st Century, TEA-21), we appreciate the opportunity now to review the four action alternatives that have been identified for further technical analysis in the Draft Environmental Impact Statement (Draft EIS).

Under the "Reinventing NEPA" (National Environmental Policy Act) pilot process employed in the I-405 Program, the Regional Council concurs with the range of alternatives presented in your request for concurrence (memorandum, July 20, 2000, Exhibit A). The completed EIS Concurrence Form is **attached.** The basis for this concurrence is briefly noted below, together with additional information relating corridor-level project implementation to regional decision-making.

Basis for Concurrence.

The Regional Council concurs with the proposed range of Draft EIS alternatives because the range is sufficiently broad to enable reliable EIS analysis of potential actions that together can satisfy the goals of VISION 2020 for the I-405 corridor and particularly the included *Metropolitan Transportation Plan* (MTP). VISION 2020 is the adopted growth management, transportation and economic development strategy for the central Puget Sound region.

The proposed range of I-405 corridor alternatives is comprehensive and will support the intended technical analysis of components from which a preferred alternative can be developed for complete analysis in the programmatic Final EIS. Together with the No-Action alternative, the four action alternatives include for further specification and technical analysis a very broad range of potential actions for appropriately meeting the previously endorsed statement of "purpose and need".

1011 Western Avenue Suite 500 • Seattle, Washington 98104-1035 • (206) 464-7090 • FAX 587-4825

The outcome of the I-405 Corridor Program will enable refinement of the Regional Council's MTP as well as support related planning by several member operating agencies including Sound Transit.

Procedures.

When selected for implementation, corridor projects and programs may be incorporated into the MTP and become eligible for federal funding. For information purposes, we offer the following description of how projects and programs advance through the regional planning and programming process.

Based in part on the programmatic Draft and Final EISs, capital projects/programs selected under the I-405 Corridor Program can receive Candidate (C) status in the *Metropolitan Transportation Plan* (MTP). Candidate projects/programs are eligible for planning, environmental or preliminary engineering level programming approval in the regional Transportation Improvement Program (TIP).

Later reclassification by the Regional Council Executive Board, from Candidate to Approved (A) status in the MTP, is contingent upon the project/program sponsor completing the necessary project-level and program-level reviews and approvals. Projects/programs classified as Approved (A) are distinguished by their readiness to proceed to implementation subject only to meeting specific project, programming and/or air quality requirements. The Candidate-to-Approved dimension of the MTP is set forth in the 1995 MTP (pages 88-9) and will be further developed in the MTP 2001 Update scheduled for adoption in March 2001.

Thank you for this opportunity to review and concur with the range of Draft EIS. We are confident that future Regional Council actions affecting proposed projects/programs for the I-405 Corridor will benefit from continued broad input. The Regional Council is particularly interested in the contributions of resource agencies collaborating in this "Reinventing NEPA" corridor-level pilot program and in broader regional growth management and resource management efforts.

Very truly yours,

Mary McCumber
Executive Director

Attachment

I-405DEISConcurrence

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: **Puget Sound Regional Council**

Signature: Mary M. Cummins

Title: **Executive Director**

Date: **July 28, 2000**

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

PSRC CONCURRENCE ON I-405 PREFERRED ALTERNATIVE

April 2002

RECOMMENDATION
TO TRANSPORTATION POLICY BOARD:

1

The Transportation Policy Board should recommend the following actions to the Executive Board regarding the Preferred Alternative for the I-405 Corridor Program:

1. Concur with the I-405 Corridor Program's Preferred Alternative (PA) and Corridor Environmental Program (CEP) as currently completed at a programmatic level of environmental analysis. This concurrence includes the following findings and comments.
   a. The PA and CEP, though not yet fully described at project-level environmental detail for modal operational and system management elements, are found to be consistent with the region's adopted transportation plan and policies contained in *Destination 2030.*
   b. A positive air quality conformity finding has resulted from the air quality testing of the Preferred Alternative's program of projects with the *Destination 2030* plan.
   c. For optimal policy consistency with *Destination 2030,* the Regional Council endorses and supports the I-405 Corridor Program's continued examination and development of two managed lanes on I-405, to achieve the greatest long-term system performance benefits and allow flexibility to operate express-bus high capacity transit while allowing for future conversion to high capacity transit if and when such is warranted.
   d. The Preferred Alternative for the I-405 corridor program includes a balanced set of complex multimodal capital and operational projects and program strategies, including transit and TDM (transportation demand management). Therefore, the Regional Council supports the need to ensure that subsequent corridor program finance and implementation actions incorporate all such composite elements.
   e. Given the extensive nature of essential construction when implementing the I-405 Corridor Program, and the many years associated with such construction, priority consideration should be given to supporting enhanced and improved transit service and HOV operations along with expanded TDM measures from the very start of corridor construction to help maximize personal travel in the corridor and mitigate the inevitable traffic delays and frustrations from construction.

2. Authorize incorporating the I-405 Preferred Alternative's program of recommended projects contained in Attachment A of the I-405 Corridor Program's "Concurrence Request" memo dated March 19, 2002 (see attached) into Appendix 9 of *Destination 2030.* Staff is directed to work with the Washington State Department of Transportation (WSDOT) to reformat the project list to be consistent with the types of project descriptions and costs in Appendix 9 of *Destination 2030.* It is understood that all such projects will continue to be Candidate projects subject to completion of appropriate requirements as included in *Destination 2030's* Appendix 6, Guidance for Plan Amendment and Capacity Investment Decisions.

RECOMMENDATION
FROM TRANSPORTATION POLICY BOARD TO EXECUTIVE BOARD:
[includes amendments from the TPB meeting]

2

The Transportation Policy Board recommends that the Executive Board take the following regarding the Preferred Alternative for the I-405 Corridor Program:

1. Concur with the I-405 Corridor Program's Preferred Alternative (PA) and Corridor Environmental Program (CEP) as currently completed at a programmatic level of environmental analysis. This concurrence includes the following findings and comments.
   a. The PA and CEP, though not yet fully described at project-level environmental detail for modal operational and system management elements, are found to be consistent with the region's adopted transportation plan and policies contained in *Destination 2030.*
   b. A positive air quality conformity finding has resulted from the air quality testing of the Preferred Alternative's program of projects with the *Destination 2030* plan.
   c. For optimal policy consistency with *Destination 2030,* the Regional Council endorses and supports the I-405 Corridor Program's continued examination and development of two managed lanes on I-405, to achieve the greatest long-term system performance benefits and allow flexibility to operate express-bus high capacity transit while allowing for future conversion to high capacity transit if and when such is warranted. Managed lanes should be explored to identify opportunities to manage transportation demand and generate revenue to help finance the project.
   d. The Preferred Alternative for the I-405 corridor program includes a balanced set of complex multimodal capital and operational projects and program strategies, including transit and TDM (transportation demand management). Therefore, the Regional Council supports the need to ensure that subsequent corridor program finance and implementation actions incorporate all such composite elements. Financial planning and implementation for both capital and operations for HOV, TDM and transit must be integral to the implementation of I-405 improvements.
   e. Given the extensive nature of essential construction when implementing the I-405 Corridor Program, and the many years associated with such construction, priority consideration should be given to supporting enhanced and improved transit service and HOV operations along with expanded TDM measures from the very start of corridor construction to help maximize personal travel in the corridor and mitigate the inevitable traffic delays and frustrations from construction.
   f. Preservation of the BNSF (Burlington Northern-Santa Fe) right-of-way should be given high priority in order to maintain the opportunity for future transportation uses or needs.

2. Authorize incorporating the I-405 Preferred Alternative's program of recommended projects contained in Attachment A of the I-405 Corridor Program's "Concurrence Request" memo dated March 19, 2002 (see attached) into Appendix 9 of *Destination 2030.* Staff is directed to work with the Washington State Department of Transportation (WSDOT) to reformat the project list to be consistent with the types of project descriptions and costs in Appendix 9 of *Destination 2030.* It is understood that all such projects will continue to be Candidate projects subject to completion of appropriate requirements as included in *Destination 2030's* Appendix 6, Guidance for Plan Amendment and Capacity Investment Decisions.

FINAL ACTION
ADOPTED BY EXECUTIVE BOARD:
(includes Executive Board amendments)

3

The Transportation Policy Board recommends that the Executive Board take the following regarding the Preferred Alternative for the I-405 Corridor Program:

1. Concur with the I-405 Corridor Program's Preferred Alternative (PA) and Corridor Environmental Program (CEP) as currently completed at a programmatic level of environmental analysis. This concurrence includes the following findings and comments.
   a. The PA and CEP, though not yet fully described at project-level environmental detail for modal operational and system management elements, are found to be consistent with the region's adopted transportation plan and policies contained in *Destination 2030.*
   b. A positive air quality conformity finding has resulted from the air quality testing of the Preferred Alternative's program of projects with the *Destination 2030* plan.
   c. For optimal policy consistency with *Destination 2030,* the Regional Council endorses and supports the I-405 Corridor Program's continued examination and development of two managed lanes on I-405, to achieve the greatest long-term system performance benefits and allow flexibility to operate express-bus high capacity transit while allowing for future conversion to high capacity transit if and when such is warranted. Managed lanes should be explored to identify opportunities to manage transportation demand and generate revenue to help finance the project.
   d. The Preferred Alternative for the I-405 corridor program includes a balanced set of complex multimodal capital and operational projects and program strategies, including transit and TDM (transportation demand management). Therefore, the Regional Council supports the need to ensure that subsequent corridor program finance and implementation actions incorporate all such composite elements. Financial planning and implementation for both capital and operations for HOV, TDM and transit must be integral to the implementation of I-405 improvements. The timing of implementation of specific elements may vary according to the type of improvements eligible for particular funding resources that become available for portions of the project. (Conlin/Okamoto)
   e. Given the extensive nature of essential construction when implementing the I-405 Corridor Program, and the many years associated with such construction, priority consideration should be given to supporting enhanced and improved transit service and HOV operations along with expanded TDM measures from the very start of corridor construction to help maximize personal travel in the corridor and mitigate the inevitable traffic delays and frustrations from construction.
   f. Preservation of the BNSF (Burlington Northern-Santa Fe) right-of-way should be given high priority in order to maintain the opportunity for future transportation uses or needs. Consideration should be given to the purchase of any right of way by the Burlington Northern-Santa Fe Railroad and evaluation of the corridor for extension of commuter rail and other HCT services. (Ladenburg/Williams)

2. Authorize incorporating the I-405 Preferred Alternative's program of recommended projects contained in Attachment A of the I-405 Corridor Program's "Concurrence Request" memo dated March 19, 2002 (see attached) into Appendix 9 of *Destination 2030.* Staff is directed to work with the Washington State Department of Transportation (WSDOT) to reformat the project list to be consistent with the types of project descriptions and costs in Appendix 9 of *Destination 2030.* It is understood that all such projects will continue to be Candidate projects subject to completion of appropriate

requirements as included in *Destination 2030's* Appendix 6, Guidance for Plan Amendment and Capacity Investment Decisions.

City of Redmond

THE CITY OF REDMOND
PLANNING DEPARTMENT

July 27, 2000

Michael Cummings
WSDOT Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2887

Subject: I-405 EIS Scoping Comments

Dear Mr. Cummings:

This letter serves as the City of Redmond's comments on the range of alternatives, areas of impact, and possible mitigation for the proposed I-405 EIS alternatives under consideration. Our comments are as follows:

1. In your memo of July 20, 2000, you state that a fourth alternative was added for EIS consideration in response to input from resource agencies. This alternative, the "minimalist" approach is not the fourth alternative on Attachment A to your memo, but instead is called Alternative 1. This is confusing and needs to be clarified.

2. Not all of the elements in the new fourth alternative, described in the letter of May 26, 2000, from Terry Hegy, WA Dept. of Fish and Wildlife (WDFW), the minimalist alternative, have been put into Alternative 1. For example, Hegy states that an expansion in transit service by 50% should be considered, but this is not part of Alternative 1 contained in your memo. Ms. Hegy also does not want Element 10 to be included, but it is. A new Element 14A should be included, but is not. Element 16 should also be a part of Alternate 1, but is not, while a new element described by Hegy as an option for flyovers without adding lanes is not included.

3. Please check with Ms. Hegy to see whether the elements of each of the alternatives contained in your memo, particularly the minimalist alternative, are acceptable to WDFW.

4. A bicycle/pedestrian path should be part of all four of the I-405 alternatives. This feature ties into the success of several of the elements that are part of the alternatives under consideration: the new element expanding transit by 50%,

Element 3-doubling transit service, Element 4-HCT service, Element 8-P&R capacity expansion, Element 9-transit center expansion, and ties in to parts of Elements 17-planned arterial "improvements", 18-north/south arterial expansion, and 19-upgrading arterials connecting to I-405. Plus the bicycle/pedestrian path would tie into connections to be opened shortly on SR-520, and is almost certain to be part of the recommendations coming from the Trans-Lake Study.

5. A discussion of the costs and benefits of all the alternatives is important in determining a preferred alternative. All alternatives should be analyzed to disclose the costs of ongoing safety, maintenance and ongoing expenses necessary for each alternative to function. This information when coupled with capital construction cost data will help make for a more informed decision on a preferred and final alternative, by disclosing the full capital and ongoing operating costs.

6. For each of the major elements of each of the four alternatives, the EIS must include a detailed description of these elements to aid in understanding the relative merits of each alternative. For example, the various features of Element 1, the "Moderate TDM Package" and Element 2, the "Expanded TDM Package" should be presented, to aid in discussing the feasibility of these elements. Or for Element 11, adding two additional general purpose lanes in each direction, four lanes total, on I-405.

7. For all four alternatives, each of the elements of the environment listed in WAC197-11-444 must be examined and the impacts disclosed. These environmental elements include:

    a) The natural environment: earth, air, water, and plants and animals;
    b) The built environment: environmental health, land and shoreline use, transportation, and public services and utilities.

    Particular attention should be paid to examining the impacts to the air and water quality, including compliance with the Endangered Species Act.

Should you have any questions about comments from the City of Redmond, please Don Cairns at (425) 556-2834, or Terry Marpert at (425) 556-2428.

Sincerely,

Roberta Lewandowski

Roberta Lewandowski
Planning Director,
SEPA Responsible Official

Michael C.

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
AUG - 4 2000

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: City of Redmond
Signature: Rosemarie M. Ives
Title: Rosemarie M. Ives, Mayor of Redmond
Date: 7/28/00

Concur

*PLEASE SEE COMMENTS IN THE ATTACHED LETTER

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

RESOLUTION NO. 1138

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON, RECOMMENDING A LONG-TERM VISION FOR THE I -405 CORRIDOR PROGRAM.

WHEREAS, a Draft Environmental Impact Statement for the I-405 Corridor Program, issued on August 17, 2001, considered four alternatives and a no action alternative, and these alternatives and basic improvements to the I-405 corridor are described in more detail in the Draft EIS, and

WHEREAS, on November 16, 2001 the Executive Committee for the I-405 Corridor Program is scheduled to select a preferred recommendation on a long-term vision for the corridor, and

WHEREAS, the City of Redmond wishes to express its support for a multi-modal approach for mobility on the Eastside, NOW, THEREFORE,

THE CITY COUNCIL OF THE CITY OF REDMOND, WASHINGTON HEREBY RESOLVES to support Alternative 3, with the following additional elements, as the preferred alternative for the I-405 Corridor Program:

1) Fixed-guideway high capacity transit for the entire length of I-405 should be studied concurrently with Alternative 3 to establish a more complete long-term vision for the corridor.

2) The concurrent study needs to consider locating fixed-guideway high capacity transit within the existing right-of-way for I-405.

THE CITY OF REDMOND
PARKS AND RECREATION DEPARTMENT

May 22, 2002

Michael Cummings
Washington State Department of Transportation
Urban Corridors Office
401 Second Avenue South #300
Seattle, WA. 98014

SUBJECT: I-405 Corridor Program Fees
Section 4(F) Consultant Regarding Welcome Park

#1
Dear Mike:

This letter is in regards to a telephone conversation I participated in on May 2, 2002 regarding Welcome Park that was initiated by Dennis Derickson with David Evans and Associates, Inc. Mr. Derickson indicated that he was assisting in the completion of the Final Preliminary Section 4(f) Evaluation portion of the I-405 Corridor Program Final Environmental Impact Statement (FEIS). He said that he had been requested to contact the City of Redmond to obtain additional information regarding the significance of Welcome Park as a local recreational resource. The reason for this requested inquiry is based on previously collected information, which indicated that this site undeveloped and currently unused for significant active park and recreation purposes. During this conversation another member or our staff and I confirmed that Welcome Park consisted almost entirely of unusable wetlands with no existing or planned active recreation facilities and for this reason would not be considered by our department to be a recreational resource of local significance. Please contact me if you have any questions regarding this matter.

Sincerely,

Roy Lehner, Park Planner
Parks and Recreation

15965 N.E. 85TH STREET • REDMOND, WASHINGTON 98052-3584 • FAX (206) 556-2303 • (206) 556-2300

City of Renton

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
DEC 16 1999

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: City of Renton
Signature: Jesse Tanner
Title: Mayor
Date: 12/14/99

Attest: Marilyn L. Petersen
Marilyn L. Petersen, City Clerk

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

CITY OF RENTON

Mayor
Jesse Tanner

September 15, 2000

RECEIVED
SEP 20 2000

Michael Cummings, Project Manager
WSDOT
Office of Urban Mobility
410 Second Avenue South, Suite 300
Seattle, WA 98104-2862

Subject: I-405 Corridor Program Draft EIS Alternatives

Dear Mr. Cummings:

The City of Renton has reviewed the four alternatives to help ease congestion on the I-405 corridor, and is pleased to concur with WSDOT's alternatives for analysis purposes with seven (7) conditions as described below:

1. The City of Renton wants to make sure that accessibility of neighborhoods and communities to I-405 is emphasized in all options. Although the importance of the interstate highway for moving long distance through traffic is recognized, the corridor improvements must also recognize the increasing access needs of the communities through which I-405 passes. The Growth Management Act has brought about accelerated growth in these communities. Improvements for the long distance traveler must not come at the expense of local accessibility.
2. Portions of the I-405 corridor pass through Renton's sole source drinking water aquifer. Sensitivity of the aquifer to possible contamination must be considered in all options.
3. In order to minimize the impacts on Renton neighborhoods, improvements to I-405 should be within existing right-of-way.
4. Impacts on neighborhoods should be minimized/mitigated. Avoid anymore "takes" to Renton Hill.
5. Any final option (preferred) needs to adequately address the SR-167/I-405 interchange situation.
6. Any grade separation of Rainier Avenue/Grady Way should not impact adjacent businesses. The City relocated automobile dealerships from the downtown to this area.
7. The City may desire to limit arterial improvements along Duvall Avenue/Jones Road and 140th to five lanes.

We are looking forward to working with WSDOT staff on this regionally important corridor study. If you have any questions, please contact Sandra Meyer, Transportation Director, at (425) 430–7242.

Sincerely,

Jesse Tanner

Jesse Tanner
Mayor

00-113/GZ:mp

cc: Renton City Council
Jay Covington
Gregg Zimmerman
Sandra Meyer

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency:
Signature: Jesse Tanner
Title:
Date:

Concur ***(Per Attached Letter)***

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

- ***The City of Renton concurs with the four alternatives to help ease congestion on I-405 corridor with seven (7) conditions as described in the attached letter of September 15, 2000, to Michael Cummings, project manager.***

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

APPROVED BY
CITY COUNCIL

Date 1-22-01

JAN 23
CITY OF RENTON
PUBLIC WORKS ADMIN.

COMMITTEE OF THE WHOLE
COMMITTEE REPORT

January 22, 2001

I-405 CORRIDOR PROGRAM
(Referred August 21, 2000)

On January 22, 2001, WSDOT presented the Council with four (4) alternatives to help ease the congestion on the I-405 corridor. Alternative 1 – High Capacity Transit/TDM, alternative 2 – Transit, alternative 3 – Mixed Mode, and alternative 4 – Roadway Capacity.

The Committee of the Whole recommends that Council endorse WSDOT's Alternative Number 3 with several conditions put forth, including, but not limited to, installation of a lid over the freeway between Cedar Avenue and Renton Avenue, adequate noise walls along the corridor to mitigate impacts to neighborhoods, and noise mitigation measures for interchange ramps. The Committee further recommends that the Mayor be authorized to send a letter stating the City's endorsement with the conditions indicated and additional conditions determined by members of the Committee. The Committee directs staff to organize a public meeting in the coming weeks to provide information and accept public comment on this important project.

The Committee also recommends that Council reserve the right to change its position as more specific information becomes available on each alternative, and upon receipt and review of citizen comment and input.

Dan Clawson, Council President

cc: ~~Jay Covington~~
Gregg Zimmerman
Sandra Meyer
Nick Afzali

CITY OF RENTON
Mayor
Jesse Tanner

RECEIVED
FEB 13 2001

February 8, 2001

Mike Cummings,
Project Manager, I-405 Corridor Program
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

SUBJECT: I-405 CORRIDOR PROJECT PRELIMINARY PREFERRED ALTERNATIVE

Dear Mr. Cummings:

Thank you for the I-405 Corridor Project Management Team's continued efforts to provide us with information about this complex and crucially important project.

As you know, on January 22, 2001, the Renton City Council Committee of the Whole met to consider the I-405 Project Management Team's request that the cities and other jurisdictions of standing along the corridor endorse a Preliminary Preferred project Alternative. This Preliminary Preferred Alternative will help establish a favored alternative for the preparation of the project environmental impact statement. We are also aware of the need to select a preferred alternative to improve opportunities to obtain funding appropriation from the state legislature.

These are compelling reasons to select a Preliminary Preferred Alternative for this project. However, Renton's policy makers have expressed significant reservations about endorsing an alternative so early in the process. Although environmental discipline reports have been drafted, the environmental impact statement has not yet been prepared. This document will provide information that we feel is key in arriving at the optimal I-405 Corridor improvement project. Also, we have not yet had an opportunity to present information about the alternatives to the members of our community, and to receive their comments. We have also been told that the final project may incorporate elements from several of the alternatives under study. We are concerned that selecting a Preliminary Preferred Alternative now may set processes in motion that will make it difficult to change or improve the plan in the future as more information becomes available.

Given all of these legitimate concerns, the Renton policy makers chose to endorse Alternative Number 3 as Renton's Preliminary Preferred Alternative, with conditions (the Council Committee Report is attached). These conditions are as follows:

1) The City of Renton reserves the right to change its position as more specific information becomes available on each alternative, and upon receipt of citizen comment and input.
2) As mitigation for continued encroachment and impacts on the Renton Hill neighborhood and its park areas and amenities, a lid should be installed over I-405 between the Renton Ave. S. and Cedar Ave. S. overpasses.
3) Adequate noise walls must be installed along the I-405 and SR 167 corridors to mitigate noise impacts on the community. Adequate noise mitigation must also be provided for improvements to the I-405/SR 167 interchange and other interchange ramps.
4) In recognition that the plan is to start the majority of work in the south end, consideration shall be given to the early start of work associated with the NE 44th Street interchange, the I-405/SR 167 interchange, and the SR 169 interchange.

5) The seven (7) conditions described in the City's September 15, 2000, letter (copy attached) are incorporated into the project to the extent physically possible.

We look forward to continuing to work with you in a cooperative and collaborative fashion on this important project.

Sincerely,

Jesse Tanner
Mayor

Dan Clawson
Council President

01-010/GZ:mp

cc: Renton City Council
Jay Covington
Gregg Zimmerman
Marilyn Petersen

CITY OF RENTON, WASHINGTON

RESOLUTION NO. 3504

A RESOLUTION OF THE CITY OF RENTON, WASHINGTON, AUTHORIZING THE MAYOR AND COUNCIL PRESIDENT TO SEND A LETTER OPPOSING THE SECURING OF USE OF BURLINGTON NORTHERN SANTA FE RIGHT-OF-WAY FOR PRESERVATION OF FUTURE TRANSPORTATION OPPORTUNITIES.

WHEREAS, the I-405 Corridor Program is studying possible future transportation opportunities to relieve traffic conditions in the I-405 corridor; and

WHEREAS, the Renton Steering Committee has been participating in the I-405 Corridor Program; and

WHEREAS, the I-405 Corridor Program is preparing to name a preferred alternative; and

WHEREAS, the concept of securing the use of the Burlington Northern Santa Fe right-of-way for preservation of future transportation opportunities was a last-minute addition for alternative #3; and

WHEREAS, such addition surprised Renton Steering Committee members; and

WHEREAS, it is believed that securing use of the Burlington Northern Santa Fe right-of-way has not been adequately discussed; and

WHEREAS, the Burlington Northern Santa Fe corridor runs through the middle of downtown Renton, through the Kennydale and south Renton residential neighborhoods, and would further affect regional recreational amenities such as Gene Coulon Park and the Lake Washington trail system; and

WHEREAS, the bisecting of the City by possible fixed rail would create adverse impacts which far outweigh the incremental benefit of adding additional high-capacity transit to this rail corridor; and

WHEREAS, the City of Renton's concurrence with the I-405 Corridor Program draft EIS alternatives is premised upon seven conditions, one of which states, "in order to minimize the impact on Renton neighborhoods, improvements to I-405 should be within existing right-of-way," and this project violates that condition;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF RENTON, WASHINGTON, DO RESOLVE AS FOLLOWS:

SECTION I. The above findings are true and correct in all respects.

SECTION II. The Mayor and Council President are hereby requested to send a letter to the project manager of the I-405 Corridor Program, expressing the City's displeasure, disappointment and opposition to securing use of the Burlington Northern Santa Fe right-of-way for preservation of future transportation opportunities.

PASSED BY THE CITY COUNCIL this 7th day of May, 2001.

Michele Neumann

Michele Neumann, Deputy City Clerk

APPROVED BY THE MAYOR this 7th day of May, 2001.

Jesse Tanner

Jesse Tanner, Mayor

Approved as to form:

Lawrence J. Warren

Lawrence J. Warren, City Attorney

RES.848:5/2/01:ma

CITY OF RENTON

Mayor
Jesse Tanner

May 8, 2001

Mike Cummings
Project Manager, I-405 Corridor Program
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

RECEIVED
MAY 09 2001

SUBJECT: I-405 CORRIDOR, PRELIMINARY PREFERRED ALTERNATIVE, RENTON'S OPPOSITION TO SECURING USE OF THE BNSF RIGHT-OF-WAY FOR PRESERVATION OF FUTURE TRANSPORTATION OPPORTUNITIES

Dear Mr. Cummings:

It is with significant disappointment that we must forward to you our opposition to the inclusion of the provision to secure use of the Burlington Northern Santa Fe (BNSF) right-of-way for "future transportation opportunities" in the I-405 Corridor Program preliminary preferred alternative. We are disappointed because this provision is a late change that was added without the exemplary degree of collaboration and regional discussion that has otherwise characterized the selection of a preliminary preferred alternative. It seems to us that this provision was more or less slipped into the mix for alternative #3 prior to the January 25 Executive Committee recommendation for a preliminary preferred alternative. Renton's Steering Committee members were taken by surprise, as were members of the Citizens Committee from the Renton area.

Our main problem with the identification of the BNSF corridor for future transportation opportunities, to include possible fixed rail HCT, is that such a use could place trains operating every eight minutes during the peak period at a maximum speed of 79 miles per hour right through the middle of Renton residential neighborhoods (specifically Kennydale and South Renton). This would create safety, livability, and access problems that would affect not only the neighborhoods, but also businesses in North Renton and the downtown core, and such regional recreational amenities as Gene Coulon Park and the Lake Washington trail system. This route would truly bisect our City, and we feel it would create adverse impacts that would far outweigh the incremental benefits of introducing high capacity transit to this rail corridor.

One of the most attractive features of preliminary preferred alternative #3 is its identification of Bus Rapid Transit (BRT) along the I-405 Corridor as its north/south high capacity transit element. We believe that BRT is superior to a fixed rail system along the BNSF corridor in that it provides far more flexibility, and it directly utilizes added freeway capacity provided by the new general-purpose lanes. The late addition of a provision to secure the use of the BNSF right-of-way for future transportation uses such as HCT would directly contradict one of the basic premises and selling points of preliminary preferred alternative #3.

We concur with the concerns expressed in the March 8, 2001, letter to the Executive Committee by Kim Browne, President of the Kennydale Neighborhood Association (copy included). We would also like to remind you that the City of Renton's concurrence with the I-405 Corridor Program Draft EIS Alternatives is premised upon seven conditions, the third of which states "In order to minimize the impacts on Renton neighborhoods, improvements to I-405 should be within existing right-of-way" (copy of September 15, 2000, letter included).

We request that you direct the efforts of the I-405 Management Team to restoring the integrity of preliminary preferred alternative #3, and returning this alternative to its previous status of regional consensus, by removing the provision that would preserve future transportation opportunities by securing use of the BNSF right-of-way. The I-405 corridor program faces enough challenges already, in our opinion, without incorporating elements of future programs that may or may not go forward, and thereby jeopardizing regional consensus.

At their council meeting on Monday, May 7, 2001, the City Council passed Resolution No. 3504 (copy included) authorizing this letter that clearly affirms the City's opposition to the securing of use of Burlington Northern Santa Fe right-of-way for transportation purposes.

Sincerely,

Jesse Tanner
Mayor

Dan Clawson
City Council President

01-046:GZ:mp

cc: I-405 Corridor Executive Committee Members
I-405 Corridor Steering Committee Members
I-405 Corridor Citizen Committee Members
Renton City Council
Kim Browne, President KNA Association
Jay Covington
Gregg Zimmerman
Sandra Meyer
Nick Afzali

CITY OF RENTON

Mayor
Jesse Tanner

June 4, 2001

RECEIVED
JUN 05 2001

Michael Cummings
I-405 Program Manager
401 Second Avenue S., Suite 300
Seattle, WA 98104

SUBJECT: I-405 CORRIDOR PROGRAM, PRELIMINARY PREFERRED ALTERNATIVE, RENTON'S OPPOSITION TO SECURING USE OF THE BNSF RIGHT-OF-WAY FOR FUTURE TRANSPORTATION OPPORTUNITIES

Dear Mr. Cummings:

Thank you for your May 23, 2001, letter addressing this issue. We appreciate your efforts to distribute our May 8 letter, which expresses our opposition to securing the use of the BNSF right-of-way for future transportation uses, to the I-405 Corridor Program committees and your publication of the letter on the Program's web page.

You mention that the Executive Committee in January 2001 recommended preserving the BNSF right-of-way without opposition. This would appear to be the case, however, unlike other elements within the Preliminary Preferred Alternative, this provision appears to have been added to the package rather suddenly without much discussion or deliberation on a regional level. In fact, the City of Renton's standing Executive, Steering, and Citizen Committee members were taken by surprise by the appearance of this new element within the Preliminary Preferred Alternative. I don't wish to further belabor the question of how this element was added to the package other than to say that I hope and trust that in the future a more inclusive and deliberative process will be used for altering a proposal under review by the committees.

It is clear in your letter that the I-405 Corridor Program Management Team intends to move forward to include this element in the Preliminary Preferred Alternative. This is unfortunate. The City of Renton remains strongly opposed to this open-ended and vague provision in an otherwise clear proposal. What does "future transportation opportunities" mean? And how can the public support this when they don't know whether they would be advocating fixed rail high capacity transit or walking trails? If this feature is a page-holder for Sound Transit, which it now appears to be, it should be considered separately within the Sound Transit Phase II package. It should be removed from the I-405 Corridor Program plan.

In answer to your question, the City of Renton's opposition to the concept pertains to the segment through Renton. We are concerned about the negative impacts fixed rail high capacity transit along the BNSF corridor would have in Renton as identified in our May 8 letter. There may well be segments of this corridor outside of Renton's city limits along which fixed rail HCT or other transit systems could provide benefit without the unacceptable impacts that would occur in Renton. We would expect the other jurisdictions along the corridor to identify these impacts, and we would certainly give them the attention that they deserve, as we expect our neighbors to do regarding impacts that have been identified in Renton.

We hope this clarifies our position in regard to the question of securing use of the BNSF right-of-way for future transportation opportunities.

Sincerely,

Jesse Tanner

Jesse Tanner, Mayor

01-056:GZ:mp
cc: Renton City Council
Jay Covington
Gregg Zimmerman
Sandra Meyer

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1901-2001 Centennial

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NOV 12 2001

CITY OF RENTON
Mayor
Jesse Tanner

November 8, 2001

Mike Cummings
Project Manager, I-405 Corridor Program
WSDOT
401 Second Ave. South, Suite 300
Seattle, WA 98104-2887

SUBJECT: I-405 PROGRAM ISSUES:
1) RENTON'S RECOMMENDATION, PREFERRED ALTERNATIVE
2) OPPOSITION TO SENSIBLE SOLUTIONS FOR I-405 PROPOSAL
3) CONCERNS ABOUT THE LANE BALANCE OPTION

Dear Mr. Cummings:

We appreciate the continued efforts of the I-405 Corridor Project Management Team to find an optimal solution to the I-405 capacity problems by obtaining regional consensus through an extensive public process. It has been a pleasure to be a participant in this process.

We are aware that the goal of the Management Team is to obtain a recommendation on a preferred alternative from the I-405 Executive Committee on November 16, 2001. Recommendation of a preferred alternative will bring us to the third concurrence point established in the I-405 Corridor Program Concurrence process. When the preferred alternative has been selected, each agency and tribe with jurisdiction (ATJ) will be asked to approve, deny, or comment on the decision at hand.

The City of Renton has conditionally approved the previous two concurrence points in the process: (1) purpose and need statement, and (2) selection of alternatives to advance for detailed study. We have also conditionally supported the Preliminary Preferred Alternative for this project that was recommended by the Executive Committee on January 25, 2001. Letters associated with Renton's conditional approvals are attached. We have now had an opportunity to review the DEIS and other information that has been provided about the program alternatives, and have heard from many of our citizens. We are, therefore, submitting to you the City of Renton's position regarding selection of a Preferred Alternative.

PREFERRED ALTERNATIVE

The City of Renton supports selection of the Preliminary Preferred Alternative as recommended by the Executive Committee on January 25, 2001, as the Preferred Alternative. The conditions that we previously identified (our letter of February 8, 2001, attached) still apply to our endorsement of this alternative.

OPPOSITION TO SENSIBLE SOLUTIONS FOR I-405 PROPOSAL

We have reviewed, and are opposed to, the Sensible Solutions for I-405 proposal. This proposal, sometimes referred to as Alternative #5, would among other things reduce the added lane proposal along I-405 to one lane in each direction, potentially a high occupancy toll (HOT) lane, and would introduce a diesel modular unit rail transit system on the BNSF rail line from Woodinville to Tukwila with high frequency service (10-15 minute headway). We have numerous concerns about this proposal that have led to our opposition. This proposal has not been subjected to the rigorous technical evaluation that the other alternatives have, and it has not been demonstrated that it will accommodate the endorsed purpose and need statement for the program. We believe that it will not. The proposal has not been evaluated in the DEIS and, therefore, its impacts have not been identified and evaluated. The impacts will be significant and severe. The introduction of the diesel modular unit rail transit element along the Burlington Northern Santa Fe corridor would divide residential communities in two and adversely impact quality of life and public safety, and would also seriously degrade access and mobility along the many at-grade street crossings in urban areas, including the downtown Renton Urban Center. Customer need and ridership for this inflexible commuter rail system proposal have not been established. The Boeing Company has stated in a letter dated October 23, 2001, "it is vital that we continue to have rail access to our Renton Plant via the Burlington Northern rail lines that run along I-405. Currently, all of our 737 and 757 fuselages are shipped by rail from Kansas to Renton. The conversion of those rail lines to another use would severely and negatively impact the viability of the Renton Plant." Introduction of this diesel modular rail transit element to the BNSF rail corridor would interfere with freight mobility, and would appear to be inimical to the interests stated by the Boeing Company. We feel that the Sensible Solutions to I-405 proposal should be discarded as an untimely distraction, and eliminated from further regional consideration.

CONCERNS ABOUT THE LANE BALANCING PROPOSAL

The lane balancing concept would add lanes to the portion of I-405 between SR-167 and I-90. The most aggressive approach would introduce three lanes in both directions along this portion of the corridor. Such a proposal would impose significantly greater impacts to the neighborhoods and the environment, particularly if the lanes were to be constructed at grade. The I-405 right-of-way would have to be expanded into residential and business properties to accommodate this, and a great deal more impervious surface would be created. On the other hand, vertical stacking of lanes would add significantly to the project cost. It has not been demonstrated that the benefits of such an approach would justify the financial, community, and environmental costs. Renton would oppose a proposal to construct three lanes in each direction between SR-167 and I-90. We do recognize that the lane balancing concept is still being developed, and might in fact involve far less intrusive improvements than continuous three lanes would present. Such approaches could include revisions to collector/distributor lanes or modest improvements to specific segments of the corridor. While it might be prudent to explore such options, Renton would not support proposals we would deem to be excessively detrimental to our communities and environment.

We look forward to the continuing regional collaboration on this important program.

Sincerely,

Jesse Tanner
Mayor

Dan Clawson
City Council President

01-118/GZ:mp
cc: I-405 Corridor Executive Committee Members
I-405 Corridor Steering Committee Members
I-405 Corridor Citizens Committee Members
Kim Browne, President KNA Association
Jay Covington
Gregg Zimmerman
Sandra Meyer
Nick Afzali

Jesse Tanner, Mayor

RECEIVED
APR 30 2002

CITY OF RENTON
City Clerk
Bonnie I. Walton

April 25, 2002

Michael Cummings
Corridor Planning Supervisor
Washington State Department of Transportation
402 Second Avenue S #300
Seattle, WA 98104-2887

Re: I-405 Corridor Program – Concurrence Point #3

Dear Mr. Cummings:

Enclosed is the signed Concurrence, Point 3, for the I-405 Corridor Program.

If you have any questions or comments concerning this matter, please feel free to contact Sandra Meyer, Transportation Systems Director at (425) 430-7242.

Thank you.

Sincerely,

Suzann Lombard

Suzann D. Lombard
Records Management Coordinator
Enclosure

cc: Sandra Meyer (w/encl.)

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: CITY OF RENTON, WASHINGTON

Signature: Jesse Tanner

Title: Mayor

Attest: Bonnie I. Walton
Bonnie I. Walton, City Clerk

Date: 4-24-2002

Circle one of the below:

Concur **Concur with Comment(s)** caveats as attached **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.

- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*

- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.

- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

I-405 Corridor Project Concurrence Point #3
Conditions of Approval

All previous requirements and comments communicated to WSDOT and the I-405 Corridor Management Team remain in effect. This includes all concurrence point information, expertise report comments, Preliminary Draft Environmental Impact Statement comments, and Draft Environmental Impact Statement comments.

Other comments to note at this concurrence point include:

1) All arterial improvements previously identified as part of the Program within the Renton area including: a) the north/south arterial of Duvall/Coal Creek Parkway with a connection to Maple Valley Highway, b) the east/west arterial of SW 43rd Street/Carr/Petrovitsky Road, and c) SW 27th Street/Strander Blvd. from SR-167 to West Valley Highway will be eligible for funding as part of a cooperative partnership.

2) The planned SW 27th Street interchange at SR-167 is identified as a fully funded WSDOT project as part of the I-405 Corridor Program. The NE 44th Street interchange is identified as a partially funded project as part of the I-405 Corridor program.

3) The Rainier Avenue/Grady Way intersection continues to need further evaluation and serious consideration in finalizing the SR-167/I-405 interchange improvement. WSDOT must work with the City to assure that any improvement to the interchange is compatible with the Rainier Avenue/Grady Way intersection operations and that operations are improved as a result of the improvement to the SR-167/I-405 interchange. Economic development considerations must be considered in any solution and coordinated with and approved, by the City.

4) The Sound Transit capital program and routing needs must be confirmed and found to be compatible with the I-405 Corridor Program. The City must be involved in this assessment and agree to all Sound Transit capital investments. Current voter approved capital investments include two HOV direct access interchanges (or equivalent). Three express bus routes as defined in the approved plan must be provided. Potential Sound Transit bus routes could include N. 6th Street/Logan Avenue or Park Avenue/S 2nd and S 3rd Streets, and Rainier Avenue. As identified, these streets and others identified to the south need to be recognized as eligible for partnering in the securement of grants.

5) The lane balancing proposal will potentially add hill climbing and/or collector distributor lanes to portions of the I-405 corridor between SR-169 and I-90. Additional lanes in this area beyond the two general purpose lanes in each direction

within the Preferred Alternative will create larger impacts to residential communities in Renton, particularly the Kennydale neighborhood. Such proposals, if seriously pursued must demonstrate transportation benefits to the I-405 corridor and be designed in a way to avoid, limit, minimize, and mitigate impacts to the neighborhoods to an acceptable level as determined by the City.

6) Noise impacts are of concern to the City. The preferred alternative must be demonstrated to not increase noise in the corridor by including sufficient mitigation to keep noise levels at or below current levels.

7) Although the Watershed Based Mitigation concept may be a reasonable approach to mitigation for the project impacts, some impacts may have to be mitigated for on-site and cannot be mitigated for offsite. The floodplain, increased quantity of runoff, water quality impacts, groundwater, some fish habitat and wetland impacts may have to be mitigated for on-site, if the impacts to the local jurisdiction are too great to be allowed for mitigation on a watershed (WRIA) level.

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
JUL 24 2000

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: City of Tukwila
Signature: James E Morrow, PE
Title: Director of Public Work's
Date: 7.19.2000

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Snohomish County

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: **Snohomish County (Public Works Dept.)**

Signature: Johannes W. Kurz

Johannes W. Kurz

Title: **Transportation Specialist**

Date: **August 4, 2000**

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

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AUG 7 2000

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APR 08 2002

Snohomish County

Public Works

Robert J. Drewel
County Executive

2930 Wetmore Avenue
Everett, WA 98201
(425) 388-3488
FAX (425) 388-6494

April 4, 2002

Mike Cummings, I-405 Corridor Program Manager
WSDOT Urban Corridors Office
401 Second Ave. S, Suite 300
Seattle, WA 98104-2887

RE: I-405 Corridor Program
Concurrence Point #3

Dear Mr. Cummings:

Enclosed is the Concurrence Point #3 Form that was signed "with comments" for Snohomish County by the County Executive. The county's comments are included in the attached Council Motion 02-143 by which the executive was authorized to sign the concurrence form. I would appreciate it if you could let me know what the project team is planning to do with these comments as well as with any of the comments that may be submitted by some of the cooperating agencies. A copy each of the signed concurrence form and the county's comments was faxed to you earlier this afternoon in order to meet the submittal deadline of April 5, 2002.

Let me at this point again express my sincere appreciation for the outstanding performance given by you as manager of this innovative approach to the planning of a very complex and challenging mega project. I am looking forward to participating in future phases of the I-405 Corridor Program.

Sincerely

Johannes W. Kurz
Transportation Specialist
Snohomish County Public Works Dept.

Enclosures

Cc: Steven Thomsen, P.E., County Engineer

I-405CorrPgrConc3 | JWK\P:I-405\4/4/02

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: for SNOHOMISH COUNTY Executive

Signature: Gary Weikel

Title: GARY WEIKEL
Deputy Executive

Date: April 3, 2002

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- "*Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process.*" At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- "*Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations.*"
- "*Agencies will have the option to comment on elements of the project at the appropriate points in the process.*" (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- "*It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate.*" Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

D-10

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

SNOHOMISH COUNTY COUNCIL
SNOHOMISH COUNTY, WASHINGTON

MOTION NO. 02-143

AUTHORIZING THE COUNTY EXECUTIVE TO SIGN "CONCUR WITH COMMENTS" ON BEHALF OF SNOHOMISH COUNTY THE CONCURRENCE POINT #3 FORM OF THE I-405 CORRIDOR PROGRAM

WHEREAS, in 1999 The Washington State Department of Transportation (WSDOT) jointly with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), Sound Transit (ST), and King County Metro (Metro) embarked on a program that is addressing multimodal transportation improvement needs in the I-405 Corridor; and

WHEREAS, as a demonstration program for streamlining the environmental review and permitting, and for the establishment of a comprehensive environmental impact mitigation effort under the "Reinventing NEPA Process," a number of local, state and federal agencies that have jurisdiction and or permitting authority, have been invited to participate in the I-405 Corridor Program; and

WHEREAS, Snohomish County, as one of the local agencies with jurisdiction, is participating in this through its membership in the program's Executive Committee, Steering Committee, and Citizen Committee; and

WHEREAS, through this collaborative effort, two previous concurrence points have been established on the purpose and needs statements (Point #1) and with respect to the alternatives that would be analyzed during the preparation of the Draft Environmental Impact Statement (Point #2); and

WHEREAS, following the environmental analysis a Preferred Alternative was selected and an Impact Mitigation Concept (Corridor Environmental Program) was developed, and it was concluded the future implementation of the many projects that make up the Preferred Alternative and the Corridor Environmental Program will only proceed successfully if the involved State and Local Governments and Agencies that provide transportation services agree, if and when this is needed, to pursue in good faith amendments to transportation plans and programs; and

WHEREAS, most, if not all, the improvements proposed in the Preferred Alternative that are located in Snohomish County are included in already adopted long-range programs of the County, the City of Bothell, Community Transit, sound transit or WSDOT;

NOW, THEREFORE ON MOTION, the Snohomish County Council authorizes the County Executive to sign "Concur with Comments" on behalf of Snohomish County the Concurrence Point #3 Form concerning the I-405 Corridor Program and requests that the following comments be attached:

State of Washington
Department of Ecology

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

July 11, 2000

Mr. Mike Cummings
Washington State Department of Transportation
(WSDOT) Office of Urban Mobility
410 Second Ave. Suite 300
Seattle WA 98104-2887

RE: Comments on Revised Fourth Alternative

Dear Mr. Cummings:

Thank you for meeting with the resource agencies on Friday to outline a revised fourth alternative proposed by the consulting team for the SR 405 project. I will be unable to attend the joint Steering and Executive Committee meeting this Friday, so wanted to provide you with Ecology's comments to share with the group.

Ecology supports the consultant teams revisions to the Washington Department of Fish and Wildlife's (WDFWs) proposal as an appropriate fourth alternative to provide a complete range of alternatives for the EIS.

Although it has been argued the elements of this alternative are presented within the other alternatives, it is important that it is provided in a clear and concise manner that is easily understood by the public and agencies reviewing the document. Selecting specific pieces out of each of the original 3 plus no-action alternatives would make it very difficult to gain a detailed understanding of what the impacts are of a high capacity transit, with no new lanes alternative.

We feel the approach you have taken allows the public and agencies to get a full range of alternatives that appropriately meet the purpose and need, while still focusing on an approach that does not involve adding an additional lane throughout the corridor.

On the issue of lane switching, I support the NMFS position that they will need this fully analyzed and modeled to show it does not meet the purpose and need, and will not result in a reasonable project, in order to meet their ESA needs for future decisions on Take and Jeopardy. I do however have concerns about including a lane switching concept in combination with the revised new fourth alternative within the EIS because I think it

would bias this alternative from being reasonable or viable. Without the lane switching concept, the addition of an HCT focused alternative is very viable, and much less impacting than the lane addition alternatives. With lane switching, the concept would add to the congestion, therefore moving some of the traffic to the HCT, but also forcing development sprawl out of the I-405 corridor, which would further impact environmental resources outside of the existing study area. Instead, a summary of the lane switching concept should be included for information, but should not be analyzed within the revised fourth alternative.

Lastly, I am encouraged by this process of early involvement by all of the parties, and feel we have a balanced and fare committee that is looking at all of the issues, including environmental. I respect the issues of the executive committee members, and hope that early involvement and comments by the environmental resource, regulatory and permitting agencies will help to speed the process in the long run, and will result in a more thorough environmental document.

So, in summary Ecology supports the addition of this revised fourth alternative that allows for a detailed analysis in the EIS to be presented on an alternative focusing on High Capacity Transit options, but does not include a new lane or lane switching options. This will allow for complete public disclosure of this option, it is consistent with Ecology's push of focusing development to a central core, and it will not bias a viable alternative with unreasonable lane switching additions.

I apologize for not making the meeting, and I hope these comments help.

Sincerely,

Sandra L. Manning

Sandra L. Manning, Ecology's Liaison to DOT
Shorelands and Environmental Assistance

cc: Resource Agencies through e-mail

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Washington State Department of Ecology
Signature: Sandra L. Manning — Sandra L. Manning
Title: Environmental Liaison to DOT
Date: 8/4/00

XX Concur (with comments) –see the attached letter

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

May 15, 2001

Mr. Mike Cummings
Washington State Department of Transportation
(WSDOT) Office of Urban Mobility
410 Second Ave. Suite 300
Seattle WA 98104-2887

RE: Comments on Preliminary Draft Environmental Impact Statement

Dear Mr. Cummings:

Ecology has reviewed the Preliminary Draft Environmental Impact Statement, which includes the preliminary preferred alternative as presented by the WSDOT Management Team. We provided comments on the matrix form requested (attached), and attended the agency review meeting to discuss the comments and WSDOT responses to those comments. We are comfortable with the responses in most cases, but had a few major issues that will need to be addressed in the DEIS before Ecology will be able to use the DEIS as a decision making document for our permits.

As stated in Ecology's February 7, 2001 letter, our primary concern is still the continued focus on additional lanes as a means of solving transportation problems. It has been demonstrated in many cities, including Seattle, that new lanes are not a feasible solution to meeting traffic demands. The studies provided by the consulting team on this project show that with even 3 new lanes, the traffic congestion in 2020 will be similar to the gridlock we are experiencing now. An aggressive HCT solution should be included in any alternative that moves forward as a preferred alternative if we ever expect to shift ridership from a car and road dependent focus that is not working, to a reliable and efficient HCT system. If the issues below are addressed, we feel a decision on a preferred alternative will be able to surface that is based on least environmental damage, but will also serve the transportation needs through 2020 and beyond.

As discussed with your consulting team, prior to Wednesday's steering committee vote that will move the PDEIS document into a DEIS, the following remaining issues are critical to providing a useful EIS document for both the agency and public use:

1) The format of the information presented for each alternative makes it difficult to compare separate components that occur within each alternative. When

Ecology concurred with the range of alternatives presented, we did so with the understanding as presented by the Management Team that the differing components within each alternative would be easy to mix and match, in order for a preferred alternative to be defined. We are interested to see how much of a difference a single lane addition (per alternative #2) compares to a double lane addition (per alternative #3) for both impacts and success in meeting travel demands. As currently presented, alternative #2 has one new lane addition but is coupled with an expensive and high impacting HCT, which biases that alternative in both costs and total environmental impacts over the double new lane addition as presented in alternative #3 which has a lower impacting HCT option.

We recommend presenting the components of each alternative in a way that separates their impacts and transportation management successes clearly for each action to allow a mix and match comparison. If this can not be done, in order for the agencies to define the Least Environmentally Damage and Practicable Alternative, we feel it is necessary to add a new alternative that has a single lane addition (similar to alt. #2) and the same HCT as the preliminary preferred or alt. #3.

2) As presented in the document, the Preliminary Preferred Alternative is difficult to compare with the other alternatives. If the issue described above is addressed, it should also make it easier to compare the components and total package of the PPA with the other alternatives.

3) Please explain in more detail how a commute savings of 7-12 minutes in travel time can justify the environmental impacts and costs of these projects. This was discussed at the meeting on May 9th, and it was clear that the transportation experts in the room felt this savings was significant, while the resource agencies were not clear on how this slight improvement was justified. This section of the DEIS needs to be more detailed.

4) It is extremely difficult to follow the HCT discussions within the document. In some places it references BRT as a component of the HCT, and in other sections it discusses BRT as the only HCT option for an alternative. We understand from the meeting that this is an issue for many reviewers, and will be clarified prior to publishing the DEIS, but we wanted to stress its importance in this letter.

5) In an earlier letter from Ecology, we raised the issue that the land use studies provided by the consulting team stated "if a fixed and separated transit system was implemented, development would focus around transit stops, allowing a more controlled method of city planning in meeting the needs of future growth". If we only provide additional lanes that are to be used by buses or HOV's as our HCT option, this planning shift will not occur, and the emphasis will remain on car-dependency, removing flexibility in commuter

options. Please address this in the DEIS, or provide a response to Ecology on how this issue will be addressed through the implementation of the preliminary preferred alternative?

Thank you again for taking these issues into consideration in preparation of the DEIS.

Sincerely,

Sandra L. Manning

Sandra L. Manning, Ecology's Liaison to DOT
Shorelands and Environmental Assistance Program

cc: Steering Committee through e-mail
Keith McGowan through e-mail
Christina Martinez and Kimberly Farley through e-mail
Ecology – Terry Swanson

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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June 12, 2001

Mr. Mike Cummings
Washington State Department of Transportation
(WSDOT) Office of Urban Mobility
410 Second Ave. Suite 300
Seattle, WA 98104-2887

RE: Follow-up Comments from June 4, 2001 Meeting regarding pDEIS for I-405 Project

Dear Mr. Cummings:

This letter provides a response to your request of June 4, 2001 that Ecology provide comments to the following two questions:

1. What information should be in the DEIS to meet Ecology's concerns?
2. What specific objectives need to be met by the preferred alternative (PA)

Should the following comments not meet your needs, please let us know as soon as possible as we recognize that we are operating under a tight deadline to produce the DEIS.

What Information should be in the DEIS to Meet Ecology's Concerns?

- As you know, our letter of May 15, 2001 described some of Ecology's key concerns with the pDEIS. Rather than repeat those items here, we have bulleted the main points:

- A High Capacity Transit (HCT) system that can meet traffic and mobility demands beyond 2001 should be fully analyzed and included in the PA. Such an alternative will meet the purpose and need of the proposed action by reducing congestion and limiting dependence on the Single-Occupancy Vehicle (SOV). Overall, this outcome will be the least environmentally-damaging alternative.

- Provide a separate analysis of the key components of the alternatives so comparisons can be made. Leaving the components packaged in separate alternatives makes it difficult to readily assess the impacts and benefits of each alternative.

- Present the PA in a manner that allows for easy comparison with the other alternatives.

- Provide an explanation of the projected benefit of a 7 – 12 minute reduction in individual commute time. Individual commute time saved multiplied by total cars on the road should not be used as an overall "savings" and thus viewed as a benefit and a reason to select the pPA. What factors were considered in the decision that the savings were so significant as to warrant selection as the pPA (e.g. total energy savings, reduced road rage, reduced air pollution, etc.).

- Provide a full description of the HCT options and how the Bus Rapid Transit (BRT) components fit.

- The pPA does not consider the land-use benefit described in the consultants' studies that would enable local governments to better address future growth if a fixed and separated transit system was implemented. This should be addressed in the DEIS.

What Specific Objectives Need to be Met by the Preferred Alternative?

Ecology's charge and goal is to reduce environmental impacts to those aspects of the environment that are under our regulatory authority. Therefore the PA should meet the following objectives by weighing various factors:

1. Wetlands – Avoid impacts, especially to Category 1

    - Acres filled; new impervious surfaces; new sources of pollution (e.g. from run-off); impacts to hi-quality buffers; hydrologic impacts

2. Shorelands - Avoid and/or minimize impact to shorelands

    - Alteration, hardening, erosion and landslides; disrupting public access

3. Air Quality – Conform to Air Quality Management Plans

    - Conform with National Ambient Air Quality Standards (NAAQS) carbon monoxide, particulates, ozone, sulfur dioxide, lead, nitrogen dioxide

4. Water Resources – Avoid and/or minimize degradation to surface and ground water

    - Consider stormwater runoff; other pollutants; new impervious surfaces; 303(d) listing issues; impacts to sole source aquifers

5. Floodplains – Avoid decreasing floodplain and floodway capacity

- Road fill; additional pavement; loss of ecological functions (e.g. wetlands, wildlife, vegetation)

We recognize that these objectives and factors are discussed throughout the pDEIS. However, it is difficult to determine how the pPA "scored" when all the factors were weighed. The PA should include a full discussion and analysis of how it meets the objectives. Additionally, the DEIS should demonstrate how the PA "improves personal and freight mobility and reduces foreseeable traffic congestion in the corridor in a manner that is safe, reliable, and cost-effective." The PA must also establish "an efficient, integrated, and multi-modal system of transportation improvements to help meet future travel needs in the I-405 corridor over the next 20 to 30 years and to help achieve the regional transportation and land use future envisioned by the Growth Management Act and adopted land use and transportation plans of local jurisdictions." We need to know how the PA achieves those goals, and why the other alternatives do not.

Again, we can provide additional details and information as we work through the process. The information included in this letter is intended to assist WSDOT in begin final preparation of the DEIS and should not be considered as the complete package of Ecology's concerns.

Thank you for providing us the opportunity to meet with you and Christina Martinez last week. We appreciate your efforts in making your team available to us as concerns arise.

Sincerely,

Therese M Swanson

Therese Swanson, Ecology-DOT Liaison
Shorelands and Environmental Coordination Section

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November 8, 2001

Mr. Michael Cummings, Project Manager
Washington State Department of Transportation
Urban Corridor Office
401 Second Avenue South, Suite 300
Seattle, WA 98104

Dear Mr. Cummings:

As the Department of Ecology's representative on the I-405 Corridor Program's Steering Committee, I have these comments to offer regarding Ecology's role in voting for a "Preferred Alternative" on November 8, 2001. Essentially, at this juncture in the process, Ecology is not in a position to vote on any of the preferred alternatives proposed in the Draft Environmental Impact Statement (DEIS) nor any combination thereof. That is, there is no environmental basis for Ecology to support or not support a preferred alternative.

Throughout this process, Ecology has participated on the Steering Committee by: attending meetings and representing Ecology's interests; supporting the Purpose and Need Statement in the DEIS; providing as timely a review of documents as possible and; finally, evaluating alternatives to be considered in the Final Environmental Impact Statement (FEIS).

As you know, Ecology is neither a "lead" agency, nor a "cooperating" agency in the I-405 Corridor Project. Rather, as a resource agency with specific permitting authorities, our appropriate role in this situation is to ensure that environmental impacts be avoided, minimized, and/or mitigated. We fulfilled that role, in part, by offering comments on the DEIS. We commented that we simply do not have enough information at this stage to choose one alternative over the other, leading us to the conclusion that there currently is no apparent environmental basis from which to select a preferred alternative. Moreover, in focussing on our role, we offered comments about environmental considerations, but find it beyond our agency's jurisdiction to offer opinions on transportation modes and issues within the purview of local governments and other state agencies.

We encourage you to carefully consider our comments on the DEIS, and we expect to see them addressed in the FEIS. As we have stated throughout the process, Alternatives 3 and 4 appear to have the most potential impacts to wetlands and other aquatic resources under Ecology's jurisdiction, primarily due to the projected amount of impervious surface. With that said, we intend to continue working with you in this process on whichever alternative is chosen to achieve

solutions that result in the fewest environmental impacts and that are consistent with the legal authorities that Ecology implements.

As a member of the Steering Committee, I appreciate the time and effort the Urban Corridor Team has devoted to the Corridor Project. Your staff has been most cooperative in providing information where possible. I look forward to our continued positive working relationship as we continue through the process. As always, do not hesitate to contact me at 360.407.6789 should you have questions, comments, or concerns.

Sincerely,

Therese Swanson

Therese Swanson
Ecology-WSDOT Liaison

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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March 14, 2002

Mr. Bruce Smith
Washington Department of Transportation
Environmental Affairs Office
310 Maple Park Avenue SE
Olympia, WA 98504-7408

RE: Comments and Guidance on Early Action Mitigation Proposal for I-405

Dear Mr. Smith:

In preparing for the concurrence point review, Ecology has several comments on the draft mitigation agreement and response summary that has been prepared for the I-405 project. We are providing in this letter some clarifying points on water quality issues that have been discussed between our agencies, specifically for the I-405 project.

We understand that the Mitigation Process is designed to provide guidance on how we will come to agreement as agencies on a mitigation plan that is sufficient to address unavoidable impacts to functions during construction and as a result of the post construction operation of the I-405 project.

State and federal requirements to meet the water quality standards are a complicating factor for Early Action Mitigation. Compliance decisions regarding wetlands and habitat are based on function replacement, no net loss guidance, and protection of beneficial uses. Protection of water quality through compliance with the state water quality standards is added along with the above stated considerations to make a final compliance decision. For early action mitigation to work, the responsibility is on the applicant to provide the documentation and technical basis necessary to determine that the project will comply with state water quality standards. This may be easier to do for wetland and habitat impacts than for stormwater and water quality impacts.

Before Ecology can accept the Draft Mitigation Agreement as the framework upon which mitigation for the I-405 expansion will be based, the agreement will need to be strengthened and clarified. For watershed planning tools to be effective in this task, additional elements and more scientific rigor will need to be added, including:

1. <u>The recognition where water quality standards are currently being met, the project cannot cause or contribute to a violation of standards.</u> Where a receiving water body meets water quality standards and has available assimilative capacity, compliance with state water quality standards may be met one of two ways:
   - through the use of Ecology's stormwater manual or an approved equivalent, or
   - through a technical demonstration (see below) that water quality standards will be met.

Where a technical demonstration in used, compliance with numeric water quality criteria is not required at the point of discharge if the study indicates there is available assimilative capacity (dilution) within the water body at the point of discharge.

2. Where water quality standards are currently not being met, the project cannot result in additional degradation of water quality. Where a receiving water body that is on the 303(d) list, the presumptive approach to demonstrating compliance with standards may not be legally and technically defensible for a project of the magnitude of I-405. Water body segments that are listed on the 303(d) list for a pollutant of concern from highway runoff are assumed to have no assimilative capacity for dilution. In these cases the following is required:

- demonstrate assimilative capacity exists at the point and time of discharge, or
- numeric criteria must be met at the point of discharge, or
- additional assimilative capacity must be created in this water body segment. The demonstration approach will likely be necessary to meet this requirement.

3. Implementing the Demonstration Approach. The use of the demonstration approach for compliance with water quality standards must include a technical analysis and assessment of the pollutant loading from the proposed project on the receiving water quality. To do this will require an estimate of the water quality and quantity contribution from existing and new impervious surfaces within the project boundaries. This study should include information on receiving water body characteristics including flows and background concentrations for the common pollutants of concern in highway runoff.

4. Evaluating pollution sources in the watershed. If the technical analysis indicates that water quality standards will be exceeded in the receiving water, watershed based mitigation may be a viable method for reducing the pollutant background concentrations. This approach can be used to free up assimilative capacity at the point of discharge. A watershed assessment model should be used to identify potential sources of pollution and determine the degree to which the sources are contributing to the present day conditions at the project site. This is needed to show that reductions in pollutant load in one part of the watershed will have the desired affect at the project site. It is not permissible for a project to exceed water quality standards in one place in exchange for enhancing the water quality in another stream segment.

5. WSDOT obligations. Where water quality standards are currently not met in receiving waters impacted by a WSDOT project, WSDOT is not required to restore water quality throughout the watershed. WSDOT is only obligated to prevent further degradation of water quality at the project site. Once pollution sources in the watershed are described and their influence at the project site understood, this opens the door to mitigation and/or pollutant trading opportunities.

6. Mitigation/Pollution Trading. If modeling shows that pollutant reductions at an upstream site can be made that will allow for increased loading at the project site, a pollutant trading mechanism will need to be developed as part of the mitigation plan.

- If the reductions are planned to come from a third party this mechanism must be a legally enforceable to ensure future control of the source;
- If the reductions are being proposed from another WSDOT source, the trading mechanism need only document the size of the reduction and a commitment to maintain the conditions at the mitigation site.

If WSDOT chooses a pollution reduction trading alternative, work with a local watershed group may be needed in order to establish the trading rules (market value and currency of the pollutant reductions). This also gets potential partners to the table that would be willing to sell or trade pollution reduction credits.

The evaluation and mitigation process described above is very similar to a Total Maximum Daily Load – a process that defines the pollutants of concern, identifies the sources of these pollutants, describes the transport mechanisms in the watershed, and requires load reductions of various sources. The primary benefit of a TMDL is that the pollutant load reductions are identified and approved in a legally recognized document.

To clarify some confusion on past comments, we want to make it clear that Ecology will not require the development of a TMDL or water clean-up plan for any of the projects within the I-405 corridor prior to addressing permits or mitigation. But as stated earlier, we will need the technical and scientific studies to support the mitigation being proposed by WSDOT. Developing TMDL s or a similar analyses for waters within the I-405 corridor may make the permitting and mitigation decisions easier for WSDOT because the information developed as part of a TMDL is similar to information that will be needed to develop tradeoff scenarios per the alternative mitigation agreement.

Doing a TMDL prior to the project also assures WSDOT of their requirements and provides information needed to make choices when developing alternatives for a particular project rather than assuming a set of requirements for decision making that may change (either to be more or less stringent) once TMDLs are complete.

A TMDL substantially reduces the risk of a citizen suit under the provisions of the Clean Water Act. In addition, WSDOT should recognize that TMDLs completed after projects are built may require expensive retrofits to meet water quality standards.

Finally, the early Action mitigation proposal does not include timelines. Technically, this project cannot be considered "early action" since the time horizon for the project is rather short. We have provided some suggestions that should help keep this project on track, but a longer range planning approach is needed to address water quality in future large complex WSDOT projects. This same timeframe is also needed to consider options for wetlands and habitat.

<u>Opportunities for improved coordination between Ecology and WSDOT</u>:
The procedures and trading mechanisms for mitigation or pollution reduction trading for stormwater needs to be more fully defined. Here are some proposals to integrate WSDOT's need for the technical basis for watershed based trading with Ecology's TMDL program:

1) Each year WSDOT and Ecology should meet to discuss projects planned for the coming 5- to 10-year horizon. At this meeting the two agencies would determine:
   a) if a discharge from a planned project would result in a violation of water quality standards;
   b) if the project has the potential to impact a 303(d) listed waterbody; and
   c) if the discharge will contain a pollutant on the 303(d) list for that water body.

2) If the proposed increase or new discharge is in an impaired (303(d) listed) stream segment, WSDOT and Ecology should determine the status of TMDL development in that drainage. WSDOT is strongly encouraged to participate in the development and implementation of the TMDL. Ecology will work with WSDOT and the surrounding communities to establish a TMDL development schedule that best meets everyone's needs.

3) WSDOT is also able to contribute resources to the development of TMDLs and other studies. Ecology is obligated to complete a large number of TMDLs before 2013. In-kind or financial contributions can help WSDOT stay on schedule.

In summary, the current draft early action mitigation approach does not specifically address water quality. Water quality needs to be dealt with in a different context than wetlands or habitat. We have provided some direction in this letter on how that may be approached. Where water quality standards are currently being met, a WSDOT project may not cause a violation of those standards. Where standards are currently not being met, there is a prohibition on new or increased pollutant loading to the waterbody for those pollutants. Lastly, a longer time frame for planning is needed to adequately address the water quality concerns prior to project design.

Thank you for giving us the opportunity to clarify our concerns regarding this approach. Again, if you have any questions, please contact Stephen at 407- 6459.

Sincerely,

Megan White, P.E., Manager
Water Quality Program

cc: Mike Cummings, DOT Urban Corridors Office

STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000

APR 08 2002

April 5, 2002

Mr. Michael Cummings
Director of Environmental and Systems Integration
Washington State Department of Transportation
Urban Corridors Office
401 Second Avenue South Suite 300
Seattle, WA 98104-2862

Dear Mr. Cummings:

Enclosed you will find the I-405 Corridor Program's "Concurrence Point #3" form indicating the Department of Ecology's "concurrence" with the Major Elements of the Program's Preferred Alternative and Mitigation Concept. As you know, Ecology's concurrence is based on the following:

- The Washington State Department of Transportation's (WSDOT) commitment that the changes to the Early Action Mitigation Strategy as agreed to by Ecology and WSDOT will be reflected in the I-405 Corridor Program's Final Environmental Impact Statement (FEIS);

- WSDOT's commitment to the six points outlined in the April 5, 2002 letter from you and Jerry Alb to me. That letter forms the basis for our continued, collaborative work on the early-action mitigation process initiated by WSDOT;

- The definition of "Maximum Extent Practicable" (MEP). MEP is a "term of art", and is not defined in the Clean Water Act for water quality purposes. Ecology reiterates that the definition of "practicable" as defined in the Early Action Mitigation document (EAM) applies to wetlands and wetland fill decisions under section 404 of the CWA and is not intended to be a substitute for "practicable" within the term "maximum extent practicable" as used in stormwater permitting under the federal NPDES permitting program. While Ecology recognizes that the EAM definition of "practicable" may apply to the NPDES permitting program under the phase I and phase II municipal stormwater permitting program, it is the municipal stormwater permit itself that defines the term "maximum extent practicable."

While we are concurring with the Major Elements of the Program's Preferred Alternative #3, we want to reiterate our ongoing concern that this alternative will have many impacts on the natural environment and that not all of those impacts can be avoided or minimized. Thus, we appreciate WSDOT's commitment to improve the Early Action Mitigation strategy in collaboration with Ecology, so as to ensure that impacts are appropriately mitigated for each project within the I-405 Corridor Program.

In closing, I would like to acknowledge the hard work of your staff throughout the Reinventing NEPA process. Ms. Christina Martinez has been instrumental in working with Ecology to resolve issues through clear and consistent communication. We look forward to working with her and other WSDOT staff as we move to the next steps in the Corridor Program.

Sincerely,

Ray Hellwig
Regional Director
Northwest Regional Office

Enclosure

cc: Doug MacDonald, Secretary, WSDOT
John Conrad, Assistant Secretary, Environmental & Engineering, WSDOT
Don Nelson, Director, Environmental & Engineering, WSDOT
Jerry Alb, Director of Environmental Services, WSDOT
Tom Fitzsimmons, Director, Department of Ecology
Megan White, Water Quality Program Manager, Department of Ecology

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: Department of Ecology

Signature:

Title: Regional Director, Northwest Regional Office

Date: April 5, 2002

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*
- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

Michael Cummings

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
OCT 12 1999

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Washington Department of Fish and Wildlife

Signature: Cynthia R. Hall

Title: SEPA/NEPA Coordinator
Date: October 8, 1999

Concur with comments

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

State of Washington
Department of Fish and Wildlife

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2200, TDD (360) 902-2207
Main Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA

October 8, 1999

Michael Cummings
WADOT
Office of Urban Mobility
401 Second Avenue
Seattle, Washington 98104-2862

Dear Mr. Cummings:

RE: Concurrence with I-405 Corridor Program
Concurrence Point #1: Purpose and Need

Our agency endorses Washington Department of Transportation's (WADOT) pilot projects to better address environmental issues early in the planning stage. As a participant in the Steering Committee for the I-405 Corridor Program, the Department of Fish and Wildlife would like to add the following comments.

The agency concurs based on current environmental laws and regulations, including the Hydraulics Code (Chap. 75.20 RCW). We cannot, however, foresee how laws may change in future years. Therefore, this concurrence is subject to current rules and regulations in place at the time site specific permit applications may be submitted for this project.

We look forward to our continued involvement in this, and other, pilot projects. If you have additional questions concerning our comments, please call Terra Hegy at (360) 902-2597 or e-mail her at hegytph@dfw.wa.gov.

Sincerely,

Cynthia R. Pratt
SEPA/NEPA Coordinator

cc: Terra Hegy

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N • Olympia, WA 98501-1091 • (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building • 1111 Washington Street SE • Olympia, WA

RECEIVED
JUN 01 2000

May 26, 2000

Mr. Mike Cummings
Washington State Department of Transportation
(WSDOT) Office of Urban Mobility
410 Second Ave. Suite 300
Seattle WA 98104-2887

Dear Mr. Cummings:

As a member of the Steering Committee representing Washington Department of Fish and Wildlife (WDFW) which is evaluating the choice of alternatives for the Interstate 405 project, I want to take this opportunity to give you our agency's perspective and comments prior to finalization of alternatives in order that they may be included for discussion. WDFW would be remiss in neglecting to bring to your attention some issues that may be potentially significant when permit approval by WDFW is sought for the final preferred alternative.

First, I want to thank you for the discipline reports, data, maps, and consultation that has been provided to all the agency representatives. After conducting analysis of the data, WDFW has the following comments:

1. Every alternative involves adding at least one lane each direction. Although adding one lane each direction has moderate impacts to streams, wetlands, and wildlife, adding two or three become significant modifications to these resources (up to six new lanes total). Alternative three could potentially double the current width of I-405 from 6 lanes to 12, plus collector and distributor lanes would add more impervious surface. Alternatives which add more than one lane each direction would potentially be environmentally costly in terms of mitigation requirements and permitting difficulties, and even adding one lane each direction is likely to face scrutiny as to whether all opportunities to minimize lanes were considered.

2. There is no alternative that looks at adding minimal impervious surface. WDFW suggests that one alternative be put forth that does not add significant new pavement and therefore, no significant impacts to wetlands, fish and wildlife. The No Action alternative has been presented to the committees as having no lanes added. However, No Action or Status Quo is required under SEPA/NEPA. An additional "action" alternative could investigate elements that improve I-405 without adding new lanes.

Possible options to enhance traffic flow could include:

- Explicit proposals to elevate express lanes, HOV, or HCT
- Flyover lanes for HOV and transit priority
- Climbing lanes for freight
- Re-allocating uses of the current highway lanes within the current highway alignment

3. At least one alternative should include elements that have zero, or almost zero, impact to fish and wildlife resources. WDFW requests that the project team put forth for consideration at least one alternative that minimizes impacts to fish, wildlife, and other environmental resources. Significant monetary incentives could be offered. Technological fixes, such as ITS and freight enhancement, and operational practices, such as Incident Response that would not involve adding impervious surface could be included, as well as elements which have zero environmental impact, such as TDM and enhanced TDM.

Performance is comprised of a number of factors: transportation, environment, cost, public acceptance, among others. One clear advantage of considering a no-new-lanes alternative is that the project team might tailor it as the alternative that performs best in terms of environment, even if it may not perform as well in terms of transportation. The public would then have the option to see the pros and cons of true "bookend" alternatives. Citizens and environmental groups, as well as resource agencies and cities such as Bellevue, are also likely interested in analysis of an alternative that does not substantially widen the existing footprint of I-405.

4. Adding one lane to SR 167 could have potentially significant impacts to habitat. This element is included in all three alternatives and yet data provided to WDFW on the theme elements reveal that this element #14 appears to have a significant negative effect on wetlands. Data show that there would be 20,900 linear feet of wetlands that could be potentially impacted along this roughly 12 mile stretch of highway. Although WDFW recognizes there is a widespread support to widen SR 167, there are also many wildlife and wetland resources in the Kent valley that would appear to be potentially impacted under this element.

5. Expanding arterials would also have potentially significant impacts to fish and wildlife resources. This element, #18, is included in two of three alternatives and would impact over 30,000 linear feet of wetlands, cross 112 fish-bearing streams, and impact almost 1.2 million linear feet of critical upland habitat for threatened and endangered species.

WDFW wanted to bring these items to the attention of the project team and the Committees. Widening SR 167 and expanding arterials should not be assumed as the only alternatives to address congestion in light of the potential environmental impacts. WDFW advises the project team to consider the potential impact to these resources in the formation of alternatives and that other options be investigated. This further supports our recommendation of a fourth alternative in which these two elements would be absent or modified to reduce impacts.

In conclusion, I suggest that the committees (preferably Steering and Executive jointly) meet soon to discuss these comments prior to making a final choice of alternatives for the EIS. I do appreciate the huge amount of effort that has gone into analysis of alternatives. WDFW will continue to assist the project team in identifying important fish and wildlife issues as this Pilot Project moves forward. I have attached some of the elements that we propose be included in a fourth "zero lanes" alternative. If I can be of further assistance, please give me a call at (360) 902-2597.

Sincerely,

Terra Hegy

cc: Cynthia Pratt, WDFW SEPA Coordinator

Possible mix of elements for a fourth alternative adding no new GP/Express lanes

Element	
1	Moderate TDM
2	Expanded TDM
new	Transit expansion by 50%
4	HCT possible if not sig. impact
7	HOV express with ramps
8	Add P & R capacity*
9	Add Transit center capacity*
14A	SR167 interchange only
16	Freeway connections*
21	Ped-bike where no sig.new pavement*
22	ITS*
23	Freight enhancements*
new element	Options for flyovers, etc. without adding a lane

New alternative would not include elements 10, 11, 13, 14 or 18. Elements 4 and 14A may be acceptable depending on level of impact.

* No review of data for those marked *. Conditional inclusion based on obtaining data on fish or wildlife impacts for these elements and finding no significant impacts.

RECEIVED
JUL 20 2000

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Department of Fish and Wildlife, Habitat Program
Signature: Cynthia R. Pratt
Title: Cynthia Pratt , SEPA/NEPA Coordinator
Date: July 24, 2000

Concur

Non-concur
(Circle one)

WDFW thanks the project team and the Executive Committee for their consideration, discussion, and inclusion of a fourth alternative that emphasizes minimizing impervious surface, primarily through transit and transportation demand management. The agency concurs that the four alternatives, as presented, represent a full range of alternatives and that these should go forward to the Environmental Impact Statement stage.

[If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)]

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

RECEIVED
JUL 27 2001

Signed Hard copy

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2808
Headquarters Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, Washington

July 24, 2001

Mr. Mike Cummings
Office Of Urban Mobility
401 Second Ave. South, Suite 300
Seattle, WA 98104-2887

Dear Mr.Cummings:

As you know, the Washington Department of Fish and Wildlife (WDFW) reviewed the preliminary DEIS and sent in comments. I would like to summarize our remaining concerns on that document.

1. WDFW believes that there is not enough detail on the preferred preliminary alternative (PPA) in the DEIS. Although similar to Alternative 2 and 3, the PPA has different costs, resource impacts, and impervious surface. WDFW feels that there is inadequate information on the PPA to use the DEIS as a decision document. Without more detailed information on the PPA specifically, it would be difficult for WDFW to make a decision on the acceptability of the PPA.

2. There needs to be more discussion in the DEIS about the decision process, the three committees, and what minority decisions were made prior to the Executive Committee's decision on a PPA. Specifically, WDFW would like it to be made clear that the decision to proceed with an additional four lanes both on I-405 and on I-167 was made by the Executive Committee and that this decision was not supported by WDFW at the meeting where the Steering Committee voted on the PPA.

3. Another concern of WDFW is that Alternative 2 appears negatively biased in terms of impervious surface, resource impacts, and cost. We believe that there are other options for locating a High Capacity Transit (HCT) system. Alternative 2 should be revised to include the concept of locating HCT within the existing right of way or HOV lane. The latter would add almost no new impervious surface. Costs appear higher for Alternative 2 and lower for Alternative 3 because of the proposed location outside the existing road right of way. WDFW very much believes that a basic HCT rail system would receive adequate ridership and also that the time is ripe for such a system. We ask that a realistic evaluation of Alternative 2 be made with these, or similar, concepts included.

4. Some of WDFW's comments on the preliminary alternative have not been addressed to date. WDFW would appreciate the chance to review these comments with the project team in order to insure that they are adequately addressed in the DEIS. One concern is the definition of High Priority Wetlands, which should include:

- Endangered or threatened plant species
- Uncommon or rare wetland types, such as bogs
- Wetlands with high quality functions. It appears that a major criterion for High Priority Wetlands is size, i.e., the larger the wetland the higher the priority. Function or uniqueness should be a criterion more so than size.

5. Finally, more attention should be paid in the DEIS to design methodologies that would reduce or eliminate impacts to fish and fish habitat. For example, the benefits of "stacking" lanes in some areas and bridging of all stream crossings should be a major discussion in the DEIS as the first step in the mitigation sequencing: to "avoid" resource impacts before any other step in mitigation is considered.

I look forward to discussing these issues with you at your earliest convenience and to continuing to work with you and your project team on this very important project.

Sincerely,

Terra Hegy

Terra Hegy
Transportation Liaison
Habitat Program

cc: Christina Martinez, WSDOT
Resource agencies
Cynthia Pratt, WDFW
Larry Fisher, WDFW
Deborah Cornett, Regional Habitat Program Manager, WDFW

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: WDFW

Signature: Cynthia R. Pratt

Title: Responsible Official, SEPA/NEPA Coordinator

Date: 4/14/02

Circle one of the below:

Concur **Concur with Comment(s)** ~~**Non-concur**~~ Early Action mitigation plan

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*
- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2200, TDD (360) 902-2207
Main Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA

April 17, 2002

Mr. Michael Cummings
Director of Environmental and Systems Integration
Urban Corridors Office
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

Dear Mr. Cummings:

I-405 Corridor Program, Concurrence Point #3:
Preferred Alternative, and Early Action Mitigation
(EAM) Plan

As I discussed with Christina Martinez on April 3, 2002, I did not receive the Concurrence Point #3 package until three days before the concurrence point was due. This may have been due to the fact that Deborah Cornett was named as the person taking over the project, however, in the past I have always received the concurrance package as the agency SEPA/NEPA coordinator and as the agency signatory representative on Transportation concurrence packages. As I stated to Ms. Martinez, the Washington Department of Fish and Wildlife (WDFW) would expedite our review period and would complete our concurrence response by today (April 17, 2002).

Two elements are required for Concurrence Point #3:

1. Preferred Alternative
2. Mitigation Concept (Early Action Mitigation)

For element #1 (Preferred Alternative) WDFW will concur although we do not support this alternative. For element #2 (Mitigation Concept) our agency cannot concur.

Preferred Alternative

The process was conducted in a very thorough manner and included nearly all affected parties. Two years long, the process was supported by data gathering efforts of WSDOT staff and consultants. Project staff have provided a good overview of environmental impacts within the study area.

However, WDFW does not believe that Alternative 3 is the least impacting alternative.

concerns about this alternative, both in its original form and as modified into the Preferred Alternative (PA). We therefore cannot endorse this as an alternative that we, as an agency, support as the least environmentally damaging alternative to fish and wildlife resources: it is not. It is our belief that choosing this alternative, because it is not the least impacting alternative, will require more mitigation. Because this is a corridor Programmatic Environmental Impact Statement (EIS), we will accept Alternative 3 as WSDOT's choice, with the knowledge that mitigation approaches must be clearly identified. In this EIS, we expect to see an approach that gives our agency some guarantee of what to expect as other project-level EIS's are being developed.

Mitigation Concept

As a concept, we support the early action mitigation plan (EAM) as a way to address future project-level mitigation needs. However, until actual impacts to streams, wetlands, and other habitats are fully analyzed and known, WDFW cannot assess the EAM as settling 100% of the mitigation needs of the project. The EAM as it is now written in Appendix J, does not give a clear picture of what potential approaches WSDOT will commit to use. For instance, the impacts have been clearly and adequately specified for a corridor-level of analysis. However, the mitigation plan does not identify where most mitigation efforts will be aimed. Obviously, some of the "potential" mitigation measures may not be practical in all sub-basins, or some areas may allow more habitat improvements than others.

While studies may help to focus on specific ways to mitigate, WDFW would like to see a clearer commitment to mitigation measures and where they would be taken. it is clear that many of the impacts already are known. This knowledge allows you to see approaches that may be taken. Since impacts per basin (and even sub-basin) have been identified, mitigation approaches could be approached for what a particular basin/ sub-basin may need. In Appendix C of Appendix J, compensatory measures are mentioned but there is no systematic approach to identify where these measures will be most directed. For instance, Lake Washington basin may require a mitigation approach that would address fish passage problems due to culverts that are barriers or partial barriers to fish; approaches may be to look at ways to bridge tributaries, or replace culverts with large, bottomless culverts. Another sub-basin may require a water quality approache because the issues may be more water quality related. Some basins/sub-basins may require several approaches, i.e., there are both fish passage and water quality issues.

We also have concerns that a conceptual commitment to avoidance measures, such as spanning streams, rivers, and wetlands has not been adequately made, to be able to feel comfortable that the mitigation sequencing as called out in our WAC 220-110-020(54), and supported by the Alternative Mitigation Guidance, has been adequately met. If more specific basin to basin approaches were outlined, this would most likely alleviate these concerns.

Lastly, The EAM does not address timelines. It would be helpful both for agency review and the public reviewing the Programmatic EIS to have a framework for expected mitigation actions.

For instance, general timelines to review potential mitigation strategies for fish and wildlife protection for each sub-basin or group of sub-basins and implementation time frames would help set the expectation as to the strategy for mitigating an individual basin/sub-basin in any future project EISs.

In conclusion, our agency hopes to have the opportunity to work closely with you to toward a mutually acceptable EAM plan that will help direct future project EISs for the I-405 corridor. If you have any questions concerning this letter or WDFW's position on the I-405 Corridor Program, Concurrence Point #3, please call me at (360) 902-2575.

Sincerely,

Cynthia R. Pratt
Responsible Official
SEPA/NEPA Coordinator
Regulatory Services Section
Environmental Services Division
Habitat Program

cc: Deborah Cornett, RHPM, Reg. 4
Rich Johnson, ARHPM, Reg. 4
Terra Hegy, WDFW
Gayle Kreitman, Reg. Serv. Division Mgr.

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2200, TDD (360) 902-2207
Main Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA

April 30, 2002

TO: Michael Cummings, WSDOT, Northwest Region

FROM: Cynthia Pratt, SAC Representative

SUBJECT: I-405 Concurrence Point 3: Early Action Mitigation Plan

While we support WSDOT's approach to an Early Action Mitigation (EAM) Plan, we cannot concur based on the following:

Specificity

- You define watersheds as WRIAs. WRIAs are an Ecology-based administrative designation. [1] The EAM plan does not define Sub-basins[2]. Our agency prefers that WSDOT look at approaches first from a stream reach to sub-basin and then extending to watershed **unless** the mitigation will give greater benefits using a larger unit for mitigation. However, we can't tell if your discussion of early action mitigation looks at benefits and costs from early action mitigation approaches in reaches or sub-basins because there is not enough information.

- Page Appendix J-12: the EAM states that "by using early-action environmental impact mitigation, and aligning WSDOT mitigation needs with various watershed and salmonid recovery needs, WSDOT can focus its impact mitigation activities where they will provide the greatest net environmental benefits." We have looked for the early-action environmental impact mitigation, but the document does not state what these EAMs will be. All that is given is mitigation during construction which would be expected to be included as conditioning in WDFW's HPA. We suggest that the EAM plan either contain a short discussion, or a matrix into this document with the sub-basins listed, the impacts listed and potential early action approaches.

---

[1] WDFW defines watersheds as a region or area drained by surface and groundwater flow in rivers, streams, or other surface channels. The "basin" or main drainage often drains to saltwater and is defined by American Fisheries Society (AFS) as "a topographic area of a watershed or geological land area that slopes toward a common center or depression where all surface and subsurface water drains".

[2] WDFW defines sub-basins as smaller watersheds or "surface area of a watershed drained by a tributary to a larger stream that is bounded by ridges or other hydrologic divides and is located within the larger watershed drained by the larger stream" (AFS).

- Since impacts are known in these sub-basins, we would expect to see some priorities established as to types of mitigation for the known impacts. This allows us to decide whether your approaches may need more mitigation during the project phase. For instance, bridging all streams as much as feasible (which you stated) in all sub-basins may be a 1:1 ratio and adequate for fish passage issues in all watersheds. However, that ratio (1:1 ratio) may not be as obvious addressing water flow impacts in X, Y, and Z sub-basins. We might require a 2:1 ratio in X, a 1:1 ratio in Y and a 3:1 ratio in Z.

Changes

- Page Appendix J-14 (Wetlands Compensation Banking Agreement). There is no discussion on Mitigation Banking in the King/Pierce Counties areas. Since there is no established bank now in existence, WDFW needs to understand how many will be created, and how they will be used.

- Page J-16 (Proposed Process). The document states that the "process is designed to focus on any impacts that may remain after project planning that are likely to be unavoidable and may not be adequately,..." The phase, "may not be adequate(ly)" could end up being an issue between our agency and WSDOT. It should be changed to "will not". WDFW's HPA will address conditions that can be mitigated, and review during project-level EISs will still look at avoidance. It seems logical that the EAM should focus on those that will not be able to be adequately mitigated on-site, etc.

- There is a flow chart (Appendix D of Appendix J-41) that outlines "steps" in the process but the general timelines are not clear. There needs to be some general guidelines. How and when will you implement the EAM for impacts within each basin and sub-basin.

- Page J-17. You mention the following methods that you will use to analyze impacts in greater detail, but they address protected aquatic and upland species and habitat. My assumption is that since you use NMFS's MPI, this does not include WDFW's concerns for unlisted species (coho, fall chum). It is not clear if you are also going to look at methods for state upland species and habitat. The document needs to include methods that will be used for state species and habitats.

- Page J-17. (#3) The document states that "if no other compensation ratios are specified or agreed to, WSDOT will use the compensation ratios specified in Tables 1, 2, or 3 of the February 15, 1994, WSDOT Wetland Compensation Bank Program MOA". Since there has been no discussion of specific mitigation to impacts this statement should be removed. We may recommend much higher ratios depending on impervious surface and impacts to fish depending on a high value wetland category but WSDOT approaches EAM for some areas may not require a higher ratio. We can't specifically say what would be our recommendation. In addition, the statement is unclear if you are referring to just wetlands or all environmental impacts (i.e., streams, upland vegetation).

- Appendix B of Appendix J-25. Descriptions on the table supposedly use totals from the "no action alternative" also. If our agency is trying to identify amount of impacts from the

preferred alternative, but not all of these impacts will be mitigated for because they are part of some other process, it is unclear as to amounts of impacts that need to be addressed by early action mitigation (based on the Preferred Alternative).

- (Appendix B, J-25) The above chart would be a good place to summarize what sub-basins are included in the "type of Impact, and potential mitigation approaches.

- Appendix J. There is nothing mentioned on the Appendix J table that addresses possible mitigation for 60,880 lineal feet of bald eagle territory impacted. If any nesting or roosting habitat is impacted (within the 800 foot buffer), a bald eagle management plan must be completed. This would include mitigation for impacts. This needs to be included in Appendix J.

- Appendix F of Appendix J. Appendix F needs to be filled out so that a better "picture" of possible compensation needs can be seen at a glance.

Despite the concerns our agency has over specificity issues, we hope to be able to work with WSDOT to come up with approaches with which our agency and yours will be satisfied. We believe this document has established a good start, and what has been presented is creditable. I hope we can resolve the issue resolution process quickly so that we can move on to developing a working relationship with WSDOT concerning the EAM.

CP:cp

cc: Gayle Kreitman
Terra Hegy
Deborah Cornett
Larry Fisher

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MAY 29 2002

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N - Olympia, Washington 98501-1091 - (360) 902-2200, TDD (360) 902-2207
Main Office location: Natural Resources Building - 1111 Washington Street SE - Olympia, WA

May 23, 2002

Washington Department of Transportation
Northwest Washington Division
Urban Corridors Office
Attention: Mr. Michael Cummings
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2887

Dear Mr. Cummings:

I-405 Concurrence Point 3, Withdrawal of Non-concurrence on Early Action Mitigation Plan

We have received the signed agreement from WSDOT concerning our discussions to resolve issues arising from the I-405 Early Action Mitigation (EAM) plan. We have agreed to withdraw our non-concurrence and will issue a new concurrence (see attachment) based on this agreement. You will find a copy of your signed facsimile attached to the concurrence letter for documentation of our agreement.

Our agency hopes to be able to work closely with you to refine your EAM plan, and when you start planning your implementation efforts. We look forward to providing you with information that will help you protect what our agency deems as critical species and habitat as you proceed with your projects that will be associated with this corridor.

If you have additional questions concerning this letter, please call Cynthia Pratt at (360) 902-2575 or e-mail her at prattcrp@dfw.wa.gov. For addition questions concerning specific fish and wildlife issues within the project area, please call Kurt Bucanan, our Transportation Liaison for WSDOT projects in the WDFW Region 4 geographical area, at (360) 466-4345 Ext. 256.

Sincerely,

Gayle Kreitman

Gayle Kreitman
Regulatory Services Section Manager
Environmental Services Division
Habitat Section

Attachments

cc: Nancy Brennan-Dubbs, USFWS, Lacey
Jack Kennedy, Corps of Engineers, Seattle
Terry Swanson, Ecology, Lacey
David Hirsh, NMFS, Lacey
Joan Cabrasa, Jonathan Freeman, EPA, Seattle
Sharon Love, FHWA, Olympia
Phil Kauzloric, WSDOT, Olympia
Cynthia Pratt, WDFW
Terra Hegy, WDFW, Reg 6
Kurt Bucanon, WDFW, Reg 4
Deborah Cornett, WDFW, Reg 4

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: WDFW

Signature: Cynthia R. Pratt

Title: Responsible Official; SEPA/NEPA Coordinator

Date: 5/24/02

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*
- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

State of Washington
Office of Archeology & Historic Preservation

STATE OF WASHINGTON
OFFICE OF COMMUNITY DEVELOPMENT
OFFICE OF ARCHAEOLOGY & HISTORIC PRESERVATION
1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
(Mailing Address) PO BOX 48343 • Olympia, Washington 98504-8343
Phone (360) 586-3065 FAX (360) 586-3067

May 21, 2002

Michael Cummings
WSDOT Project Manager
I-405 Corridor Program Environmental Impact Statement

RE: I-405 Concurrence Package
052202-FHWA-01

Dear Mr. Cummings:

I have reviewed the I-405 Corridor Program EIS Preferred Alternative concurrence package. While I concur with the package in concept I must note that there are no references to the protection of cultural resources. Therefore, my concurrence is limited to agreeing with the direction of the project. Please remember that the Section 106 process has not been completed. We are still expecting that the historic properties inventory will be completed, there will be an evaluation of historic properties and that we will determine appropriate mitigation strategies should there be an adverse effect. Please remember that the Environmental Impact Statement is not a substitute for Section 206 reports. If you are planning to integrate NEPA and Section 106 we must be informed of that action in writing and the notification must include a proposal for how that integration will occur.

Most Sincerely,

Allyson Brooks, Ph.D.
State Historic Preservation Officer

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: State Historic Preservation Office

Signature: [signature]

Title: SHPO

Date: 5/21/02

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
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- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

RECEIVED
OCT 21 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Ecology
Signature: [signature]
Title: Env. Planner
Date: 10-18-99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

City of Tukwila

City of Tukwila
Steven M. Mullet, Mayor
Department of Public Works
James F. Morrow, P.E., Director

MEMORANDUM

DATE: August 14, 2001

FROM: Jim Morrow, Director of Public Works
City of Tukwila

TO: Karen Schmidt, Executive Director
Freight Mobility Strategic Investment Board

RE: Project Execution – What works and does not work

Even though we spend a considerable amount time discussing what does not work, there are a number of positive aspects to the manner in which the FAST Partners tackle freight mobility issues. Here is the positive side:

(1) Shared vision and goal.
(2) Up-front planning.
(3) Prioritized list of projects – does not change from year-to-year.
(4) Sub-area equity is not an issue.
(5) Partnership is paramount.
(6) Regional perspective is implemented.

Unfortunately there is a longer list of the negatives, most are the result of the "process" that is used to execute transportation projects. The negatives:

(1) A single source of funding is not available – multiple funding sources required. A great deal of a project sponsor's time is spent trying to cobble together adequate funding. A great deal of time is spent crafting separate agreements with each funding partner.
(2) Funding is never considered to be "secured/guaranteed." Funding sources are fragile; e.g. loss of MVET funding; funding partners withdrawal from prior agreements. Until all of the funding has been secured, the other funds cannot be expended – ineffective use of dollars; poor obligation rates.
(3) Each funding partner has its own rules for providing the money – reimbursement is difficult and time consuming. For large projects, project sponsor may incur finance charges for short-term loans in order to pay the contractor.

6300 Southcenter Boulevard, Suite #100 • Tukwila, Washington 98188 • Phone: 206-433-0179 • Fax: 206-431-3665

(4) Inflexible project execution process – steps are sequential and cannot be accomplished concurrently.

(a) Cannot proceed with acquiring right-of-way until the environmental classification summary (ECS) has been obtained.

(b) Cannot advertise for construction until right-of-way certification has been obtained.

(c) Cannot obligate funds for next step until the previous step has been completed.

(d) Environmental permits must be obtained from multiple agencies – no "one-stop" shopping.

(e) Construction contracting is overly restrictive. WSDOT is adamant about using "unit-price" contracts. No flexibility allowed – sometimes a competitively bid, lump sum/fixed price contract is better suited for projects.

(f) Little or no "real" authority at the local level. All key approvals (environmental permits, ECS, right-of-way certification, type of contract to be used, funding approvals, channelization plans, etc.) are retained at WSDOT (Olympia) and/or FHWA level.

(5) Lack of standards for getting right –of-way certification. Different standards for different agencies. WSDOT can obtain right-of-way certification much easier than a city.

(6) Local Programs has much tougher standards, higher hurdles, and a more restrictive process than what exists for WSDOT-sponsored projects or transit-sponsored projects.

(7) Local agencies are not suppose to contact FHWA – must go through WSDOT. WSDOT does not always have the local agencies best interest at heart. FHWA is cited as the "bad guy." Leads to a lack of trust between local agencies, WSDOT, and FHWA.

(8) Process is getting longer, more difficult, and convoluted.

(9) Local Agency Guideline (LAG) Manual must be followed. No options are allowed.

APR 11 2002

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: City of Tukwila

Signature: James E Morrow

Title: Director, Public Works

Date: April 5, 2002

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

The "on-ramp" / connection from Southcenter Pkwy to I-405 must be part of the preferred alternative.

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- "*Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process.*" At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.
- "*Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations.*"
- "*Agencies will have the option to comment on elements of the project at the appropriate points in the process.*" (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.
- "*It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate.*" Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

United States
Army Corps of Engineers

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
DEC 15 1999

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Corps of Engineers

Signature: Jack Kennedy

Title: Regulatory Project Manager
Date: 12 December 1999

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Corps of Engineers

Signature: Jack Kennedy

Title: Acting Chief, Enforcement Section
Date: September 5, 2000

RECEIVED
SEP 2000

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

REPLY TO
ATTENTION OF

Regulatory Branch

APR -5 2002

Mike Cummings
Washington State Department of Transportation
Urban Corridors Office
401 Second Avenue South
Seattle, Washington 98104

Reference: I-405 PFEIS
Concurrence Point 3

Dear Mr. Cummings:

The Seattle District, U.S. Army Corps of Engineers (Seattle District), has reviewed the Preliminary Final Environmental Impact Statement (EIS) for the Interstate 405 Corridor Program. On March 19, 2002, you provided us a copy of the document, and under the "Reinventing NEPA" initiative, asked us to concur with your selection of a preferred alternative and mitigation concept. By concurring with these two items, the Seattle District would be acknowledging that for each, project information for the current phase is adequate, and that the project should proceed to the next phase—publication of a final EIS—without modification.

We concur with your document's selection of a preferred alternative, and its mixture of additional lanes for I-405, and transit investments and arterial improvements throughout the study area.

We do not concur with its mitigation concept. We feel the mitigation concept did not present the kind of information we would deem adequate for inclusion in a final programmatic EIS. Appendix J deals most directly with the subject of mitigation. It presents a "Corridor Environmental Program," a noncommittal overview of various existing and proposed mitigation programs and approaches. After reviewing the EIS, especially Sections 2, 3.5, and 3.6 and Appendix J, we have no idea how your agency will mitigate for unavoidable adverse impacts attributable to the preferred alternative.

The EIS makes it clear that mitigation locations and concepts will be identified during the permitting phase of specific components. Appendix J commits to various studies in the near term and more further out. This particular EIS is somewhat unique in that it identifies the major freeway elements of its program, the transit investments and locations, and the arterial improvements. It also identifies in acceptable detail the location of aquatic resources and their anticipated adverse impacts—down to the hundredth of an acre. Aquatic impacts are listed by municipality, and cross-listed by a breakdown of major stream and river basins, typically displayed in Table 3.5-1.

The kind of mitigation information we would deem adequate for inclusion in *this particular* final programmatic EIS would involve a discussion, basin by basin, of the affecting projects, their already calculated impacts, and an overall mitigation strategy to be applied *to that basin*. Work already done under the "Early Action Environmental Impact Mitigation" efforts described in Appendix J could form the basis for each basin's unique mitigation. It is quite clear from Sections 3.5 and 3.6 that the basins vary widely in existing development, water quality, and the likely impacts components of the corridor program will have on their respective areas. Inclusion of such mitigation information—far from finalized, but enough to constitute a procedural commitment—is information quite appropriate for a final EIS at the programmatic level.

On the subject of specific mitigation, the opening sentences of the EIS' Section 3.6.5.2 provide an interesting start:

> Specific mitigation can not be defined at the programmatic level of analysis. This is a result of uncertainties in the actual amount and type of wetland impacts, amount and type of required mitigation, variation in existing opportunities for mitigation in each basin, and early stage of coordination with affected jurisdictions. Furthermore, impact reduction measures to be developed during the project design phase will reduce the required amount of required mitigation.

We do not disagree with all of that statement. The "amount and type of wetland impact" are known and disclosed in the EIS to an acceptable degree. And while the "amount and type of required mitigation" is indeed uncertain, a discussion about the approach you would use for mitigation in each basin would be strengthened by the high level of existing information you have about the aquatic resources and likely impacts. We know there will be changes and refinement. .We feel the final EIS—the next stage to which this project is to proceed—is the appropriate place to disclose this information. It is a logical place to describe, basin by basin, the mitigation approach to be employed. The subsequent stream of post-final EIS supplements will be too limited to specific parts of the corridor program to contain general mitigation information.

Such an "envisioned mitigation" section in the final EIS would well serve WSDOT and the municipalities in the decades to come, as pieces of the corridor program slowly advance through the permit process. We would have a general standard, presumably blessed with resource agency concurrence, from which to judge mitigation consistency with the 2002 EIS. Mitigation for each basin can get more specific with time, but the Final EIS is the best place to provide a starting point for specificity about mitigation.

A section like we envision would also provide an excellent basis from which to develop a programmatic approach to permitting the impressive number of individual components to the I-405 corridor program. We envision a form of Regional General Permit that might apply to the components of the I-405 program, perhaps basin by basin, as designs, effects, and mitigation are finalized. The Pilot Projects were established to more effectively use NEPA documentation in the regulatory process. We see an excellent opportunity to do so with this I-405 Final EIS.

If you have any questions about this letter or the Corps' position on the I-405 Corridor Program, please call me at telephone (206) 764-6907.

Sincerely,

Jack Kennedy
Transportation Team Leader

DEPARTMENT OF THE ARMY
SEATTLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

REPLY TO
ATTENTION OF

MAY 22 2002

MAY 23 2002

Regulatory Branch

Mike Cummings
Washington State Department of Transportation
Urban Corridors Office
401 Second Avenue South
Seattle, Washington 98104

Reference: I-405 PFEIS
Concurrence Point 3

Dear Mr. Cummings:

On April 5, 2002, the Seattle District, U.S. Army Corps of Engineers (Seattle District) responded to your request for our position on Concurrence Point 3 for the Interstate 405 Corridor Program. Concurrence Point 3 dealt with the project's Preliminary Final Environmental Impact Statement (EIS), and specifically with the EIS's selection of a preferred alternative and its presentation of the project's mitigation concept.

We concurred with the selection of a preferred alternative, but we did not concur with the content of the project's mitigation concept. Our letter requested greater discussion about the approach to be used for mitigation in each sub-basin, and specific major project impacts in each sub-basin. During subsequent discussions with you and your staff, it became apparent that such information was not easily or usefully available for each sub-basin in the project area. But it was available, to a useful degree, on the three sub-basins that together accounted for about three quarters of the total project's aquatic impacts.

Your staff fashioned that information into Section 3.6.5.2 and added it to the Final EIS text. We have reviewed the contents of Section 3.6.5.2 and have determined that it adequately fulfills our request. It does so quite well, in a manner that is initial, far from finalized, but sufficient to establish a procedural commitment that will be used in developing mitigation as specific elements of the overall project proceed through the design and regulatory processes.

The Seattle District now concurs with the Preliminary Final EIS's presentation of the project's mitigation concept. Our position now is that project information for the current phase is adequate, and that the project should proceed to the next phase—publication of a final EIS.

If you have any questions about this letter or the Corps' position on the I-405 Corridor Program, please call me at telephone (206) 764-6907.

Sincerely,

Jack Kennedy

Jack Kennedy
Transportation Team Leader

United States
Fish and Wildlife Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

RECEIVED
OCT 12 1999

OCT 0 8 1999

Michael Cummings
Washington State Department of Transportation
Office of Urban Mobility
401 Second Avenue
Seattle, Washington 98104-2862

RE: I-405 Corridor Program Concurrence Request

Dear Mr. Cummings:

We received your request for concurrence on the "purpose and need" for the above proposed project. You requested concurrence as part of the "Reinventing National Environmental Policy Act" pilot process. Based on the information provided, we concur with the proposed "purpose and need" with one comment. We request that the second bullet be rewritten as follows:

> "... protection or enhancement of fish-bearing streams, and regional environmental **functions** and values ....".

Thank you for the opportunity to comment. Should you have any questions regarding our comments, please contact Nancy Brennan-Dubbs at (360) 753-5835 or at the above letter head address.

Sincerely,

Lynn P. Childress

for Gerry A. Jackson, Manager
Western Washington Office

NBD/mp

c: WSDOT, Olympia (Stevens)
EPA, Seattle (Roy, Parkin)
DOE, Lacey (Vialle, Manning)
WDFW, Olympia (Pratt)
Corps, Seattle (Kennedy)
NMFS, Lacey (Guy)
City of Issaquah (Fox)

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: USFWS
Signature: Lynn P Childers
Title:
Date:

Concur w/ comments

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Western Washington Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

AUG 10 2000

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, Washington 98104-2862

RE: I-405 Corridor Program, Concurrence Point 2 - Draft Environmental Impact Statement Alternatives

Dear Mr. Cummings:

We are responding to your request for concurrence on the alternatives which will be included in the Draft Environmental Impact Statement for the above proposed corridor program. The proposed corridor program is one of the three pilot projects under the "Reinventing NEPA" process.

We appreciate the coordination you have had with our agency to address our request for the addition of a fourth alternative to the Draft Environmental Impact Statement. This alternative, now identified as Alternative 1, focuses on high capacity transit, transportation demand management, and minimizing impervious surfaces. Based on the inclusion of this alternative in the Draft Environmental Impact Statement, we concur with the alternatives which will be incorporated in this document for review.

If you have any questions, please contact Nancy Brennan-Dubbs, of my staff, at (360) 753-5835.

Sincerely,

Lynn P. Childers

for Gerry A. Jackson, Manager
Western Washington Office

cc: NMFS, Lacey (Gibbons)
EPA, Seattle (Parkin)
Corps, Seattle (Kennedy)
DOE, Lacey (Manning)
WDFW, Olympia (Hegy)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Western Washington Fish and Wildlife Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

RECEIVED
NOV 09 2001

NOV - 7 2001

Michael Cummings,
Project Manager
Washington Department of Transportation
401 Second Avenue South, Suite 300
Seattle, Washington 98104

Subject: I-405 Preferred Alternative Worksheet

Dear Mr. Cummings:

As a member of the I-405 Steering Committee, the U. S. Fish and Wildlife Service (FWS) has been asked to complete and submit a copy of the above referenced worksheet. The worksheet identifies the 21 plus elements that make up the proposed five alternatives for the I-405 corridor. We have been asked to indicate on the worksheet whether a particular element should be included in a preferred alternative, conditions for our supporting that element, and any rationale we may have for our comments.

We are notifying you that we are unable to complete the worksheet due to the difficulty in evaluating each element individually and its impacts to fish and wildlife. While we believe that this method of requesting our input has its benefits, the information presented for each element is not presented in the Draft Environmental Impact Statement or the supporting documents in a manner which enables us to easily perform this task. Instead, we are providing you general comments on the elements and a preferred alternative.

Our focus for evaluating the various elements and alternatives focuses on the potential impacts to fish and wildlife and their habitat. Information that we have used to help us in our assessment are acres of wetland impacted, new acres of impervious surface, and new stream corridor crossings and encroachments.

In general, if an element does not result in 1) the loss of wetlands and waters of the United States, 2) new impervious surfaces, and 3) new stream crossings and encroachments, we do not object to its inclusion in a preferred alternative. Very few of the elements meet this condition, however.

We are generally supportive of those elements which will result in the reduction of single occupancy vehicles as this helps to reduce the need for additional traffic lanes, and their attendant

impervious surfaces and wetland fills. The flip side of this is we are not supportive of the creation of new general purpose lanes, arterials or other features that result in increased impacts to fish and wildlife and their habitat. Additionally, the indirect effects of additional growth associated with new lanes and arterials creates further concerns for resources under our jurisdiction.

Based on the information provided in the Draft Environmental Impact Statement and supporting documents, the action alternative that impacts fish and wildlife the least is Alternative 1 (High Capacity Transit/Transportation Demand Management). This alternative is composed of 11 elements, some of which have more fish and wildlife impacts than others. We do not object to the elements contained in this alternative if they are critical to making this a practicable alternative.

We look forward to continuing to work with you to develop an alternative that is acceptable to our agencies, and which meets the needs of transportation and fish and wildlife. Should you have any questions or comments, please contact Nancy Brennan-Dubbs, of my staff, at (360) 753-5835.

Sincerely,

for Ken S. Berg, Manager
Western Washington Fish and Wildlife Service Office

c: Corps, Seattle (J. Kennedy)
EPA, Seattle (J. Freedman)
FHWA, Olympia (J. Leonard)
DOE, Lacey (T. Swanson)
WDFW, Olympia (T. Hegy)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Western Washington Fish and Wildlife Office
510 Desmond Drive SE, Suite 102
Lacey, Washington 98503
Phone: (360) 753-9440 Fax: (360) 753-9008

RECEIVED
APR 08 2002

MAR 28 2002

Mike Cummings
Washington Department of Transportation
401 Second Avenue South
Suite 300
Seattle, Washington 98104

Subject: I-505 Concurrence Point 3, Preferred Alternative

Dear Mr. Cummings:

We received the preliminary final Environmental Impact Statement and request for concurrence on Concurrence Point 3, the preferred alternative, on March 19, 2002. Your memo requests that we provide our response regarding concurrence by April 5, 2002. We wish to inform you that we will be unable to meet this timeframe due to other workload responsibilities. However, my staff, Ms. Nancy Brennan-Dubbs, will provide a response as expeditiously as possible. Our goal is to provide you with a response by April 26, 2002, at the latest.

I apologize that we are unable to meet your requested timeframe. If you have any questions, please contact Mr. Lynn Childers, Ms. Brennan-Dubbs' supervisor, at (360) 753-5831.

Sincerely,

Lynn P. Childers

for Ken S. Berg, Manager
Western Washington Fish and Wildlife Office

c: FHWA, Olympia (J. Leonard)
Corps, Seattle (J. Kennedy)
EPA, Seattle (J. Freedman)
NMFS, Lacey (D. Hirsh)
DOE, Lacey (T. Swanson)

United States
Environmental Protection Agency

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
OCT 12 1999

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: U.S. EPA
Signature: Richard B Parkin
Title: Manager, Geographic Implementation Unit
Date: 9/30/99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

RECEIVED
OCT 12 1999

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

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- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: U.S. EPA
Signature: Richard B Parkin
Title: Manager, Geographic Implementation Unit
Date: 10/12/99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: Environmental Protection Agency
Signature: Richard B. Parkin
Title: Manager, Geographic Implementation Unit
Date: 8/10/00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Reply To
Attn Of: ECO-088 99-083-FHW

Attn. Michael Cummings
Washington Department of Transportation
I-405 Corridor Program
401 Second Avenue South, Suite 300
Seattle WA 98104

Dear Mr. Cummings:

We have reviewed the Decision Making Guide and Worksheet supplied to us electronically on October 10, 2001 by Washington Department of Transportation for the I-405 corridor program. We acknowledge the hard work involved in creating and assembling these materials. We believe it is important to supplement the input you requested in these materials and to reiterate some concerns we have previously stated regarding the I-405 corridor project in our letter of October 19, 2001.

The system-level criteria from the Guide (pages 4-5) that we supported most consistently in reviewing the worksheet were: reducing single-occupancy vehicles, providing connections to regional and local transportation, providing access to various mode choices, maximizing benefits to cost, minimizing cost (which is similar to "reasonable range of funding"), all of the environmental criteria, safety concerns, and environmental justice. To some extent, we also found travel time predictability, and serving 2020 peak demand important; the latter criteria was used as a way of keeping our concern for minimizing construction impacts in mind.

A key problem with the worksheet in our view, is that it is difficult to take the major elements out of context and comment on them in isolation, overlooking the inter-relationships with other elements and their comparative priority. The effectiveness of each element depends on its inter-relationships with other elements in a proposed alternative as construction proceeds for projects in the corridor program. For example, element number 4 in the worksheet, Arterial HOV Priority, must work in tandem with element number 5, HOV Express with Direct Access Ramps. However, its effectiveness will also be related, in large part, to how well arterials are integrated to whatever transit mode is selected. There are undoubtedly other linkages that affect how one might consider element 4. EPA might favor Item 6, Park-and-Ride lots, but this depends on what other elements the lots are intended to support, as well as their location. If they are located in areas that may encourage increased use by SOV travelers from outlying areas (induced travel), or they are linked to general purpose lanes, we may oppose this element outright.

As you recall from our letter of October 19, 2001, we proposed that the program adopt an adaptive management strategy whereby the programmatic document provides a framework for making final mode choice decisions, but avoid selecting final project elements at this time that are set in stone. We proposed that the strategy require initial elements be built and operated and then be evaluated prior to determining what the next mode choice construction projects might be. We proposed broadly prioritizing several mode choices as follows: starting with non-structural,

least-cost Transportation Demand Management (TDM) measures in a region-wide context; then addressing the obvious, current congestion and safety problems; then constructing a transit mode or modes; and finally, if conditions still warrant, adding lane capacity. We proposed leaving open the decision of making additional lanes general purpose, managed lanes, or whether they should run the length of the corridor or in strategic locations until specific project planning takes place. This proposed approach completely vanishes in the worksheet exercise.

The worksheet, for a number of elements, asks questions on specific projects. Stating our approval of their inclusion in a preferred alternative, we believe, would require our review of project-specific information. Since project-level information is not available at present, we cannot state an opinion on these projects at this time. We reiterate a comment from our letter of October 19, 2001: even if we concur on a preferred alternative, we are not concurring that all the proposed projects on the list from Appendix B, I-405 Corridor Program EIS Alternatives Project Matrix, portions of which are included on the worksheet, are also being committed to. We expect that future planning on these projects will include, if necessary, examination of the need for these projects on an individual basis, and additional NEPA documentation prior to decisions or action.

We have two additional points of clarification to our comment letter. The first regards the EIS cover sheet or signature page. The Environmental Protection Agency is listed as a cooperating agency in the DEIS. This appears to be a reference to our agency's participation in the I-405 program as a pilot project in the Reinventing NEPA process. We are a member of the pilot project Steering Committee. However, we are not officially a cooperating agency. Designation as a cooperating agency under the Council on Environmental Quality Regulations at Section 1501 normally requires a prior official request from the Federal lead agency, followed by response from the cooperating agency(s), and the signing of a written agreement. We request your agency remove our agency from this list of cooperating agencies, or clarify that cooperation is in the form of active participation on the Steering Committee. The second point of clarification regards the justification statement in our letter of October 19, 2001 about rating the no-action alternative as **LO,** (lack of objections). We stated that this ranking was based on the expectation that projects comprising this alternative were already approved through the NEPA process and funded. To the extent that this is not the case with projects comprising the no-action alternative, we wish to clarify that we may reconsider this rating, if necessary, in the future.

Thank you for the opportunity to review this worksheet. Again, we acknowledge all of your hard work in putting the Worksheet and Decision Guide together. If you would like to discuss the issues raised in this letter, please contact Jonathan Freedman at (206) 553-0266.

Sincerely,

Elaine Stamm for

Judith Leckrone Lee, Manager
Geographic Implementation Unit

Enclosures

cc: Ben Brown, WSDOT
James Leonard , FHWA

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: Federal Highway Administration
Signature: Sharon R Price
Title: Environmental Program Manager
Date: 12/14/99

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

City of Woodinville

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: City of Woodinville
Signature: [signature]
Title: Director of Public Works
Date: 24 July 00

Concur

Non-concur
(Circle one)

RECEIVED
JUL 25 2000

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

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Federal Highway Administration

U.S. Department
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May 23, 2000

HFO-WA.1/I-405

City of Newcastle
Micheal Nicholson
Planning Director
13020 SE 72nd
Newcastle, WA 98059-3030

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Nicholson:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

The FHWA and WSDOT are preparing a combined NEPA/SEPA EIS that will evaluate alternative solutions to satisfy existing and future transportation needs. The I-405 Corridor Program EIS is a "Reinventing NEPA" pilot project, intended to evaluate and improve the application of the NEPA process. The pilot process was developed cooperatively by Washington State and Federal agencies, and is jointly sponsored by WSDOT and FHWA.

Your previous and continued participation is welcomed as you have special expertise or permitting authority for this project' s affected environment. We invite you to work with us to identify those environmental factors that you consider to be most critical, and to ensure that the NEPA/SEPA EIS adequately addresses your concerns.

ALTERNATIVES

The I-405 Executive Committee and Steering Committee have not yet identified specific alternatives to be included in the EIS. This is because the new NEPA process being pilot-tested as part of the I-405 EIS calls for this identification at a later stage. However, a wide range of alternative actions have been suggested during the Executive Committee, Steering Committee, Citizen' s Committee, public and agency scoping meetings held to date. These include: (1) implementing a range of transportation system management (TSM) and transportation demand management (TDM) measures; (2) expanding the

capacity of the existing I-405; (3) expanding the capacity and improving the continuity of the adjacent arterial network; (4) expanding the capacity of the existing bus transit system; (5) implementing new high-capacity transit; and/or (6) a combination of elements of the preceding alternatives. Also, a variety of land use and development controls by local jurisdictions may be identified, but these are not within the jurisdiction of the WSDOT or the FHWA.

ENVIRONMENTAL RESOURCES AND ISSUES

The following is a preliminary list of the environmental and land resources that are in the corridor study area, and potential issues that the EIS will likely address. Whether they are in the potential impact zone, or would likely be affected by any alternative, is not known at this time.

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The following is a list of permits or approvals that may be required, depending on the alternative selected, its location, and its effects:

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As a cooperating agency, your agency' s involvement should entail those areas under its jurisdiction or special expertise that need to be addressed to satisfy your concerns. No direct writing or analysis will be

necessary for the document' s preparation. However, you are expected to tell us if, at any point in the process, your needs are not being met.

The following are actions we will take to maximize interagency cooperation:

- ◊ Invite you to Steering Committee meetings and other coordination meetings and joint field reviews;
- ◊ Consult with you on any relevant technical studies that will be required for the project;
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We expect that at the end of the process the EIS will satisfy your NEPA/SEPA requirements including those related to alternatives, review of environmental consequences, and mitigation. We also expect that the document will address any concerns you may have resulting from your responsibilities under other federal and state laws and regulations. We intend to use the EIS as the basis for the Record of Decision (decision making document).

If you have any questions or would like to discuss our agencies' respective roles and responsibilities during the preparation of the EIS, please me at (360) 753-9550. For project information, call Michael Cummings of WSDOT at (206) 464-6223

Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

cc: Mike Brower, FHWA
Ben Brown, WSDOT
Michael Cummings, WSDOT
Others (Listed on Attached)

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May 23, 2000

HFO-WA.1/I-405

City of Tukwila
Steve Lancaster
Planning Director
6300 Southcenter Blvd.
Tukwila, WA 98188-2599

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Lancaster:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

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May 23, 2000

HFO-WA.1/I-405

City of Bellevue
Kris Liljeblad
Planning Assistant Director
P.O. Box 90012
Bellevue, WA 98009-9012

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Liljeblad:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

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May 23, 2000

HFO-WA.1/I-405

City of Bothell
Manny Ocampo
Assistant City Manager
9654 NE 182nd St.
Bothell, WA 98011

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Ocampo:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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If you have any questions or would like to discuss our agencies' respective roles and responsibilities during the preparation of the EIS, please me at (360) 753-9550. For project information, call Michael Cummings of WSDOT at (206) 464-6223

Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

cc: Mike Brower, FHWA
Ben Brown, WSDOT
Michael Cummings, WSDOT
Others (Listed on Attached)

U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

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http://www.fhwa.dot.gov/wadiv

May 23, 2000

HFO-WA.1/I-405

City of Kirkland
Eric Shields
Planning Director
123 - 5th Ave.
Kirkland, WA 98033

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Ms. Shields:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

The FHWA and WSDOT are preparing a combined NEPA/SEPA EIS that will evaluate alternative solutions to satisfy existing and future transportation needs. The I-405 Corridor Program EIS is a "Reinventing NEPA" pilot project, intended to evaluate and improve the application of the NEPA process. The pilot process was developed cooperatively by Washington State and Federal agencies, and is jointly sponsored by WSDOT and FHWA.

Your previous and continued participation is welcomed as you have special expertise or permitting authority for this project' s affected environment. We invite you to work with us to identify those environmental factors that you consider to be most critical, and to ensure that the NEPA/SEPA EIS adequately addresses your concerns.

ALTERNATIVES

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Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

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May 23, 2000

HFO-WA.1/I-405

City of Redmond
Roberta Lewandowski
Planning Director
P.O. Box 97010
Redmond, WA 98073-9710

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Ms. Lewandowski:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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May 23, 2000

HFO-WA.1/I-405

City of Renton
Gregg Zimmerman
Planning, Building, & Public Works Administrator
1055 S. Grady Way
Renton, WA 98055

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Zimmerman:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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May 23, 2000

HFO-WA.1/I-405

Snohomish County
Steve Holt
Planning Director
3000 Rockefeller Ave., MS 604
Everett, WA 98201-4060

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Holt:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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May 23, 2000

HFO-WA.1/I-405

U.S. Fish and Wildlife Service
Nancy Brennan-Dubbs
510 Desmond Dr. SE, Suite 102
Lacey, WA 98501-1273

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mrs. Brennan-Dubbs:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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Your previous and continued participation is welcomed as you have special expertise or permitting authority for this project' s affected environment. We invite you to work with us to identify those environmental factors that you consider to be most critical, and to ensure that the NEPA/SEPA EIS adequately addresses your concerns.

ALTERNATIVES

The I-405 Executive Committee and Steering Committee have not yet identified specific alternatives to be included in the EIS. This is because the new NEPA process being pilot-tested as part of the I-405 EIS calls for this identification at a later stage. However, a wide range of alternative actions have been suggested during the Executive Committee, Steering Committee, Citizen' s Committee, public and agency scoping meetings held to date. These include: (1) implementing a range of transportation system management (TSM) and transportation demand management (TDM) measures; (2) expanding the capacity of the existing I-405; (3) expanding the capacity and improving the continuity of the adjacent

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ENVIRONMENTAL RESOURCES AND ISSUES

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Wetlands	Displacements and Relocation
Land and Shoreline Use	Social and Economic Impacts
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POTENTIAL FEDERAL, STATE AND LOCAL PERMITS AND APPROVALS

The following is a list of permits or approvals that may be required, depending on the alternative selected, its location, and its effects:

- ◊ Section 404, Clean Water Act, Permit – U.S. Army Corps of Engineers and U.S. Environmental Protection Agency
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The following are actions we will take to maximize interagency cooperation:

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We expect that at the end of the process the EIS will satisfy your NEPA/SEPA requirements including those related to alternatives, review of environmental consequences, and mitigation. We also expect that the document will address any concerns you may have resulting from your responsibilities under other federal and state laws and regulations. We intend to use the EIS as the basis for the Record of Decision (decision making document).

If you have any questions or would like to discuss our agencies' respective roles and responsibilities during the preparation of the EIS, please me at (360) 753-9550. For project information, call Michael Cummings of WSDOT at (206) 464-6223

Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

cc: Mike Brower, FHWA
Ben Brown, WSDOT
Michael Cummings, WSDOT
Others (Listed on Attached)

U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
http://www.fhwa.dot.gov/wadiv

May 23, 2000

HFO-WA.1/I-405

National Marine Fisheries Service
Rick Applegate
Assist. Reg. Admin. for Habitat Conservation
525 NE Oregon St., Suite 500
Portland, Oregon 97232

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Applegate:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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Enclosures

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May 23, 2000

HFO-WA.1/I-405

U.S. Army Corps of Engineers
Tom Mueller
District Chief
P.O. Box C-3755
Seattle, WA 98124-2255

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Mueller:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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May 23, 2000

HFO-WA.1/I-405

U.S. Environmental Protection Agency
Rick Parkin
Geographic Implementation Unit
Park Place Bldg.
1200 6th Ave., MS WD-126
Seattle, WA 98101

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Mr. Parkin:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

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May 23, 2000

HFO-WA.1/I-405

Washington State Department of Ecology
Sandra Manning
Environmental Review
P.O. Box 47600
Olympia, WA 98504-7600

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Ms. Manning:

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- ◊ Critical Area Ordinances (wetlands, hazard areas, critical habitat) – King County, Snohomish County, City of Bellevue, City of Bothell, City of Kenmore, City of Kent, City of Kirkland, City of Newcastle, City of Redmond, City of Renton, City of Tukwila, City of Woodinville
- ◊ Shoreline Substantial Development Permit (development within the shoreline zone) – King County, Snohomish County, City of Bellevue, City of Bothell, City of Kenmore, City of Kent, City of Kirkland, City of Newcastle, City of Redmond, City of Renton, City of Tukwila, City of Woodinville

As a cooperating agency, your agency' s involvement should entail those areas under its jurisdiction or special expertise that need to be addressed to satisfy your concerns. No direct writing or analysis will be

necessary for the document' s preparation. However, you are expected to tell us if, at any point in the process, your needs are not being met.

The following are actions we will take to maximize interagency cooperation:

- ◊ Invite you to Steering Committee meetings and other coordination meetings and joint field reviews;
- ◊ Consult with you on any relevant technical studies that will be required for the project;
- ◊ Provide you with study results, Steering Committee minutes, and project information;
- ◊ Invite you to joint public involvement activities;
- ◊ Provide a review copy of the pre-draft and pre-final EIS for any changes needed to reflect your views and concerns; and
- ◊ Provide adequate information for cooperating agencies to discharge their NEPA and SEPA responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, and/or clearances.

We expect that at the end of the process the EIS will satisfy your NEPA/SEPA requirements including those related to alternatives, review of environmental consequences, and mitigation. We also expect that the document will address any concerns you may have resulting from your responsibilities under other federal and state laws and regulations. We intend to use the EIS as the basis for the Record of Decision (decision making document).

If you have any questions or would like to discuss our agencies' respective roles and responsibilities during the preparation of the EIS, please me at (360) 753-9550. For project information, call Michael Cummings of WSDOT at (206) 464-6223

Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

cc: Mike Brower, FHWA
Ben Brown, WSDOT
Michael Cummings, WSDOT
Others (Listed on Attached)

U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

Suite 501 Evergreen Plaza
711 South Capitol Way
Olympia, Washington 98501-1284
(360) 753-9480
(360) 753-9889 (FAX)
http://www.fhwa.dot.gov/wadiv

May 23, 2000

HFO-WA.1/I-405

Washington Department of Fish & Wildlife
Cynthia Pratt
600 Capitol Way N
Olympia, WA 98501-1091

Re: I-405 Corridor Program
Request for Cooperating Agency Status

Dear Ms. Pratt:

The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Washington State Department of Transportation (WSDOT), King County, and Sound Transit would like to formalize our existing relationship involving the I-405 Corridor Program. **We request your participation as a cooperating agency in the preparation of an Environmental Impact Statement (EIS)** to examine the proposed action for the 30-mile-long Interstate 405 (I-405) corridor, between its southern intersection with Interstate 5 (I-5) in the City of Tukwila in King County, Washington, and its northern intersection with I-5 in Snohomish County, Washington. The proposed action would provide an efficient, integrated, and multi-modal system of transportation solutions to improve movement of people and goods, reduce foreseeable traffic congestion, and enhance mobility in the corridor study area, which extends approximately one to three miles on either side of I-405.

The FHWA and WSDOT are preparing a combined NEPA/SEPA EIS that will evaluate alternative solutions to satisfy existing and future transportation needs. The I-405 Corridor Program EIS is a "Reinventing NEPA" pilot project, intended to evaluate and improve the application of the NEPA process. The pilot process was developed cooperatively by Washington State and Federal agencies, and is jointly sponsored by WSDOT and FHWA.

Your previous and continued participation is welcomed as you have special expertise or permitting authority for this project' s affected environment. We invite you to work with us to identify those environmental factors that you consider to be most critical, and to ensure that the NEPA/SEPA EIS adequately addresses your concerns.

ALTERNATIVES

The I-405 Executive Committee and Steering Committee have not yet identified specific alternatives to be included in the EIS. This is because the new NEPA process being pilot-tested as part of the I-405 EIS calls for this identification at a later stage. However, a wide range of alternative actions have been suggested during the Executive Committee, Steering Committee, Citizen' s Committee, public and agency scoping meetings held to date. These include: (1) implementing a range of transportation system management (TSM) and transportation demand management (TDM) measures; (2) expanding the capacity of the existing I-405; (3) expanding the capacity and improving the continuity of the adjacent

arterial network; (4) expanding the capacity of the existing bus transit system; (5) implementing new high-capacity transit; and/or (6) a combination of elements of the preceding alternatives. Also, a variety of land use and development controls by local jurisdictions may be identified, but these are not within the jurisdiction of the WSDOT or the FHWA.

ENVIRONMENTAL RESOURCES AND ISSUES

The following is a preliminary list of the environmental and land resources that are in the corridor study area, and potential issues that the EIS will likely address. Whether they are in the potential impact zone, or would likely be affected by any alternative, is not known at this time.

Air Quality	Geology and Soils
Waterways and Hydrological Systems	Water Quality
Flood Plains	Fisheries and Wildlife
Wetlands	Displacements and Relocation
Land and Shoreline Use	Social and Economic Impacts
Cultural Resources	Visual Quality
Energy	Noise
Hazardous Waste	Surface Transportation
Public Services	Utilities

POTENTIAL FEDERAL, STATE AND LOCAL PERMITS AND APPROVALS

The following is a list of permits or approvals that may be required, depending on the alternative selected, its location, and its effects:

- ◊ Section 404, Clean Water Act, Permit – U.S. Army Corps of Engineers and U.S. Environmental Protection Agency
- ◊ Section 7, Endangered Species Act, consultation (northern bald eagle, Chinook salmon, bull trout) – U.S. Fish and Wildlife Service; National Marine Fisheries Service
- ◊ Wildlife Attraction notification and coordination (wetland/detention pond within 5,000 feet of runway) – Renton Airport and Federal Aviation Administration
- ◊ National Pollutant Discharge Elimination System Stormwater Permit (construction disturbing more than 5 acres) – Washington State Department of Ecology
- ◊ Section 401, Clean Water Act, Water Quality Certification (runoff) – Washington State Department of Ecology
- ◊ Hydraulic Project Approval (construction in waters of the State) – Washington State Department of Fish and Wildlife
- ◊ Critical Area Ordinances (wetlands, hazard areas, critical habitat) – King County, Snohomish County, City of Bellevue, City of Bothell, City of Kenmore, City of Kent, City of Kirkland, City of Newcastle, City of Redmond, City of Renton, City of Tukwila, City of Woodinville
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If you have any questions or would like to discuss our agencies' respective roles and responsibilities during the preparation of the EIS, please me at (360) 753-9550. For project information, call Michael Cummings of WSDOT at (206) 464-6223

Sincerely,

GENE K. FONG
Division Administrator

Michael R. Brower
Transportation and Environmental Engineer

Enclosures

cc: Mike Brower, FHWA
Ben Brown, WSDOT
Michael Cummings, WSDOT
Others (Listed on Attached)

INTERSTATE 405 CORRIDOR - PERSONS cc'd

Kim Becklund, City of Bellevue
Connie Marshall, City of Bellevue
Ron Smith, Council Member, City of Bellevue
Goran Sparrman, City of Bellevue
Sandra Guinn, Council Member, City of Bothell
Eddie Low, City of Bothell
Jim Arndt, Public Works Director, City of Kirkland
Sants Contreras, Council Member, City of Kirkland
Joan McBride , Council Member, City of Kirkland
Gary Adams, Mayor, City of Newcastle
Kevin Gross, City of Newcastle
Don Cairns, City of Redmond
Rosemarie Ives, Mayor, City of Redmond
Sue Carlson, City of Renton
Randy Corman, Council Member, City of Renton
Sandra Meyer, City of Renton
Pam Carter, Council Member, City of Tukwila
Johannes Kurz, City of Tukwila
Jim Morrow, City of Tukwila
Steve Mullet, City of Tukwila
Rob McKenna, King County Council
Don Ding, King County DOT
Roy Francis, King County Department of Transportation
Sally Marks, King County DOT
Harold Taniguchi, King County Executive Office
Ron Sims, Executive, King County
Barbara Cothern, Snohomish County Council
Dave Somers, Snohomish Co Council
Linda Gehrke, Federal Transit Administration
Tom Gibbons, National Marine Fisheries Service
Dan Guy, National Marine Fisheries Service
Steve Landino, National Marine Fisheries Service
Dan Tonnes, National Marine Fisheries Service
Jack Kennedy, U. S. Army Corps of Engineers
Richard Clark, U.S. EPA
Bill Ryan, U.S. Environmental Protection Agency
Christopher Hurst, WA State House of Representatives
Cheryl Pflug, WA State House of Representatives
Jim Horn, WA State Senate
Margarita Prentice, WA State Senate
George Kargianis,WA State Transp.Commission
Bob Edwards, Puget Sound Regional Council
Tom Fitzsimmons, WA State Dept. of Ecology
Loree Randal, WA State Dept. of Ecology
Mike Rundlet, WA State Dept. of Ecology
Janet Thompson, WA State Dept. of Ecology
Ted Muller, WDFW
Barbara Gilliland, Sound Transit
Brian O'Sullivan, Sound Transit Board
Rob McKenna, Sound Transit Board
Dave Earling, Sound Transit Board
Terra Hegy, Washington Fish & Wildlife

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U.S. Department of Transportation

Federal Highway Administration

Washington Division

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http://www.fhwa.dot.gov/wadiv

June 5, 2000

HFO-WA.1/I-405

The Honorable John Daniels, Jr., Chairperson
Muckleshoot Tribe
39015 172nd Avenue SE
Auburn, WA 98092-9763

Attention: Donna Hogerhuis, Cultural Resources

I-405 Corridor EIS
Request for Tribal Consultation

Dear Chairperson Daniels:

The Federal Highway Administration and the Washington State Department of Transportation are developing an undertaking to address an identified transportation need in King County. A brief description of this undertaking follows:

The I-405 Corridor EIS is a multi-agency sponsored, community-based partnership to create a package of integrated, multi-modal transportation improvements that will address future transportation needs in the I-405 Corridor. The I-405 Corridor spans central King and south-central Snohomish Counties east of the Seattle metropolitan area. The EIS includes an active public involvement program and a detailed environmental review process. The final package of transportation improvements developed through the I-405 Corridor Program, and evaluated in the EIS, will propose adoption into local, regional, state, and federal transportation plans and programs.

The purpose of the program is to improve existing and future mobility for people and goods; to reserve environmental quality; and to establish the best package of programs and projects to implement. Further information regarding the program schedule, scope, and study process is available at the following WSDOT web site: **http://www.wsdot.wa.gov/I-405/default.htm.**

To obtain further project specific information please contact WSDOT representatives Carol Hunter at (425)452-9337 or Dean Torkko at (206)440-4527.

In order to ensure that we take into account the effects of this undertaking on properties listed in

or eligible for listing in the National Register of Historic Places, the FHWA is initiating formal Section 106 consultation pursuant to 36 CFR 800.2(a)(4). Recognizing the government-to-government relationship which we have with the tribe, the Federal Highway Administration will continue to play a key role in this undertaking as the responsible Federal agency. You may contact us at anytime for assistance with the process and/or the undertaking. Also, since the Washington State Department of Transportation will be directly managing the cultural resources studies and will be carrying out this undertaking, we encourage you to participate in direct consultation with the WSDOT and their consultants.

Your response to this letter, acknowledging your interest in participating in this undertaking as a consulting party and identifying key tribal contacts, is greatly appreciated. Please provide a response within thirty (30) calendar days so that we may set up a meeting to discuss this undertaking and the area of potential effects. Should you have any questions about this matter, you may contact our Section 106 specialist, Dave Leighow, by phone at (360) 753-9486 or by e-mail at **dave.leighow@fhwa.dot.gov.** You may also contact Sandie Turner, WSDOT Cultural Resources Manager, by phone at (360) 705-7493 or by e-mail at **turners@wsdot.wa.gov.**

Sincerely,

/s/ Gene K. Fong

GENE K. FONG
Division Administrator

Enclosures

cc: Dr. Allyson Brooks, SHPO
Sandie Turner, WSDOT, OSC Environmental Office, MS 47331 2A
Ben Brown, WSDOT, NWR, MS NB82-138
Dave Leighow, FHWA

MRBROWER:TG 06-05-00 MRB0605TG01.WPD

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U.S. Department
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June 5, 2000

HFO-WA.1/I-405

The Honorable Lonnie Salem, Chairperson
Yakama Nation
PO Box 151
Toppenish, WA 98948-0151

Attention: Johnson Meninick, Cultural Resources

I-405 Corridor EIS
Request for Tribal Consultation

Dear Chairperson Salem:

The Federal Highway Administration and the Washington State Department of Transportation are developing an undertaking to address an identified transportation need in King County. A brief description of this undertaking follows:

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Sincerely,

/s/ Gene K. Fong

GENE K. FONG
Division Administrator

Enclosures

cc: Dr. Allyson Brooks, SHPO
Sandie Turner, WSDOT, OSC Environmental Office, MS 47331 2A
Ben Brown, WSDOT, NWR, MS NB82-138
Dave Leighow, FHWA

MRBROWER:TG 06-05-00 MRB0605TG04.WPD

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U.S. Department
of Transportation

**Federal Highway
Administration**

Washington Division

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(360) 753-9889 (FAX)
http://www.fhwa.dot.gov/wadiv

June 5, 2000

HFO-WA.1/I-405

The Honorable Douglas Paul Lavan, Chief
Kikiallus Indian Nation
3933 Bagley Avenue N.
Seattle, WA 98103

I-405 Corridor EIS
Request for Tribal Consultation

Dear Chief Lavan:

The Federal Highway Administration and the Washington State Department of Transportation are developing an undertaking to address an identified transportation need in King County. A brief description of this undertaking follows:

The I-405 Corridor EIS is a multi-agency sponsored, community-based partnership to create a package of integrated, multi-modal transportation improvements that will address future transportation needs in the I-405 Corridor. The I-405 Corridor spans central King and south-central Snohomish Counties east of the Seattle metropolitan area. The EIS includes an active public involvement program and a detailed environmental review process. The final package of transportation improvements developed through the I-405 Corridor Program, and evaluated in the EIS, will propose adoption into local, regional, state, and federal transportation plans and programs.

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/s/ Gene K. Fong

GENE K. FONG
Division Administrator

Enclosures

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Sandie Turner, WSDOT, OSC Environmental Office, MS 47331 2A
Ben Brown, WSDOT, NWR, MS NB82-138
Dave Leighow, FHWA

MRBROWER:TG 06-05-00 MRB0605TG05.WPD

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June 5, 2000

HFO-WA.1/I-405

The Honorable Cecile Hansen, Chairperson
Duwamish Tribe
140 Rainier Avenue S. Suite 6
Renton, WA 98055-2000

I-405 Corridor EIS
Request for Tribal Consultation

Dear Chairperson Hansen:

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/s/ Gene K. Fong

GENE K. FONG
Division Administrator

Enclosures

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Sandie Turner, WSDOT, OSC Environmental Office, MS 47331 2A
Ben Brown, WSDOT, NWR, MS NB82-138
Dave Leighow, FHWA

MRBROWER:TG 06-05-00 MRB0605TG03.WPD

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U.S. Department of Transportation

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June 5, 2000

HFO-WA.1/I-405

The Honorable Joseph O. Mullen, Chairperson
Snoqualmie Tribe
PO Box 280
Carnation, WA 98014

Attention: Ailene Enickkanim Ventura, Cultural Resources

I-405 Corridor EIS
Request for Tribal Consultation

Dear Chairperson Mullen:

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Sincerely,

/s/ Gene K. Fong

GENE K. FONG
Division Administrator

Enclosures

cc: Dr. Allyson Brooks, SHPO
Sandie Turner, WSDOT, OSC Environmental Office, MS 47331 2A
Ben Brown, WSDOT, NWR, MS NB82-138
Dave Leighow, FHWA

MRBROWER:TG 06-05-00 MRB0605TG02.WPD

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the focus of the environmental investigation and disclosure in this document.

Agency: FEDERAL HIGHWAY ADMINISTRATION
Signature: James A. Leonard
Title: URBAN TRANSPORTATION / ENVIRONMENTAL ENGINEER
Date: 7/31/2000

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

U.S. Department
of Transportation

**Federal Highway
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RECEIVED
APR 18 2001

April 16, 2001

HFO-WA.3/I-405 Corridor

Melissa Calvert - Coordinator
Muckleshoot Wildlife and Cultural Resources Programs
Muckleshoot Indian Tribe
39015 172nd Avenue S.E.
Auburn, Washington 98092-2242

I-405 Corridor Program

Dear Ms. Calvert:

Thank you for your letter of March 27, 2001, regarding our recent meeting with your Committee.

I have discussed your issues of concern with the Washington State Department of Transportation [WSDOT] staff and we feel that there must have been a misunderstanding during our meeting, or perhaps we did not clearly communicate the FHWA/WSDOT proposals for the NEPA/SEPA compliance process.

Mr. Cummings staff have agreed to call you, as suggested, to set up a follow-up meeting where we would be happy to show and describe for you the numerous environmental studies that have recently been completed for the corridor level Draft Environmental Impact Statement [DEIS]. As the DEIS is adopted by the co-lead agencies it will be made available for public and agency review, not only as you suggested, but as required by both the NEPA and SEPA requirements.

As discussed during the meeting, this Corridor Program Environmental Impact statement [EIS] is a 'Pilot' Re-inventing NEPA process and is supported by the various state and federal environmental resource agencies. One of the reasons for the corridor level EIS is to avoid the issues you have raised, segmenting of the overall analysis, and to obtain a better understanding of the cumulative effects of such an undertaking. As the corridor level environmental process is completed, prior to any construction taking place, a project level analysis will be completed to allow a more specific analysis of impacts and mitigation measures to be accomplished.

I hope this clarifies some of the questions you had on the process and eliminates some of your concerns. I look forward to the follow-up meeting in the near future, so we can discuss these issues and processes in more detail.

If you have questions in the meantime, please do not hesitate to call me a 360-753-9408.

Sincerely,

HARRY R. BENNETTS
Acting Division Administrator

James A Leonard

By: James A. Leonard
Urban Transportation & Environmental Engineer

Cc: John Okamoto – WSDOT
Mike Cummings – WSDOT

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON DIVISION
SUITE 501, EVERGREEN PLAZA
711 SOUTH CAPITOL WAY
OLYMPIA, WA 98501

WSDOT

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
Urban Corridors Office
401 Second Avenue S, Suite 300
SEATTLE, WA 98104

May 23, 2002

HFO-WA.3/SR405

John Iani, Regional Administrator
U. S. Environmental Protection Agency, Region 10
Environmental Protection Agency
1200 Sixth Ave
Seattle, WA 98101-3123

I-405 Concurrence Point 3, Conflict Resolution

Dear Mr. Iani:

This letter serves to inform you that the Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) in conjunction with the co-lead agencies, Federal Transit Administration, King County and Sound Transit are initiating the conflict resolution process for the I-405 Corridor Program. This process is being initiated for concurrence point 3 of the Re-Invent NEPA Pilot Project. Lack of concurrence poses a critical undue hardship for the Corridor Program and its resources. As such, FHWA and WSDOT will be elevating the conflict resolution to Level 3 of our procedures (see enclosed).

On March 19, 2002 WSDOT sent a package to the I-405 Corridor Program Steering Committee requesting concurrence on the Corridor Program Environmental Impact Statement (EIS) Preferred Alternative and mitigation concept. In accordance with procedures identified in the Re-Invent NEPA pilot project, this package represents the third and final concurrence point. Response was requested by April 5, 2002.

During the intervening six weeks, staffs from both our agencies have met to discuss the technical merits of the preferred alternative and mitigation concept. In addition, staffs have exchanged several phone calls, draft technical memoranda and emails. The best efforts of staff to resolve the technical and philosophical differences have not resulted in concurrence from your agency.

In an effort to keep this critical project moving and achieve our goal for a consensus driven EIS process, the co-leads will be referring the unresolved issues to the executive level decision makers within each agency. In accordance with the procedures, it is expected that a meeting among these decision makers will be scheduled within 5 calendar days. You will be contacted shortly to make the arrangements for that meeting.

Should you have any questions, please contact WSDOT staff, Rick Singer at (360) 791-6326 or Christina Martinez at (206) 389-3256 or FHWA staff, Jim Leonard at (360) 753-9408.

Daniel M. Mathis, P.E.
Division Administrator

Federal Highway Administration

Michael Cummings
Director of Environmental and System Integration
WSDOT Urban Corridor Office

cc: Judith Lee, EPA
Jonathan Friedman, EPA
Jerry Alb, WSDOT

JALeonard:ML 11:55am JAL0523ML02.DOC

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON DIVISION
SUITE 501, EVERGREEN PLAZA
711 SOUTH CAPITOL WAY
OLYMPIA, WA 98501

WSDOT

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
Urban Corridors Office
401 Second Avenue S, Suite 300
SEATTLE, WA 98104

May 23, 2002

HFO-WA.3/SR405

Ken Berg, Manager
Western Washington Office
U. S. Fish & Wildlife Service
510 Desmond Dr. SE Suite 102
Lacey, WA. 98503-1291

I-405 Concurrence Point 3, Conflict Resolution

Dear Mr. Berg:

This letter serves to inform you that the Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) in conjunction with the co-lead agencies, Federal Transit Administration, King County and Sound Transit are initiating the conflict resolution process for the I-405 Corridor Program. This process is being initiated for concurrence point 3 of the Re-Invent NEPA Pilot Project. Lack of concurrence poses a critical undue hardship for the Corridor Program and its resources. As such, FHWA and WSDOT will be elevating the conflict resolution to Level 3 of our procedures (see enclosed).

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During the intervening six weeks, staffs from both our agencies have met to discuss the technical merits of the preferred alternative and mitigation concept. In addition, staffs have exchanged several phone calls, draft technical memoranda and emails. The best efforts of staff to resolve the technical and philosophical differences have not resulted in concurrence from your agency.

In an effort to keep this critical project moving and achieve our goal for a consensus driven EIS process, the co-leads will be referring the unresolved issues to the executive level decision makers within each agency. In accordance with the procedures, it is expected that a meeting among these decision makers will be scheduled within 5 calendar days. You will be contacted shortly to make the arrangements for that meeting.

Should you have any questions, please contact WSDOT staff, Rick Singer at (360) 791-6326 or Christina Martinez at (206) 389-3256 or FHWA staff, Jim Leonard at (360) 753-9408.

Daniel M. Mathis, P.E.
Division Administrator
Federal Highway Administration

Michael Cummings
Director of Environmental and System Integration
WSDOT Urban Corridor Office

cc: Lynn Childers, USFWS
Jim Michaels, USFWS
Nancy Brennan-Dubbs, USFWS
Jerry Alb, WSDOT

JALeonard:ML 11:50am JAL0523ML01.DOC

Federal Transit Administration

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives -*

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: FTA
Signature: John Witten
Title: Community Planner
Date: 8-30-00

All reasonable alternatives presented in the future must be considered.

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

U.S. Department
of Transportation
**Federal Transit
Administration**

REGION X
Alaska, Idaho, Oregon,
Washington

915 Second Avenue
Federal Bldg. Suite 3142
Seattle, WA 98174-1002
206-220-7954
206-220-7959 (fax)

June 6, 2002

Mr. Michael Cummings
Project Manager
Washington State Department of Transportation
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862

Re: I-405 Corridor Program
Authorization to Finalize FEIS

We have reviewed the preliminary Final Environmental Impact Statement (FEIS), March 2002, and the "camera-ready" FEIS, June 2002, for the I-405 Corridor Program. The FEIS, as revised, provides a complete, objective and technically sufficient analysis of the potential impacts on the human, economic, and social environment, examining potential impacts from construction as well as operation and maintenance.

This letter serves as your authorization to proceed with printing the FEIS. As you know, the availability of the FEIS must be advertised to the public and to other interested agencies. Please see the Federal Transit Administration's environmental review regulations at 23 CFR 771.125 for more details.

Please call John Witmer, (206) 220-7964, if you have any questions.

Sincerely,

Richard F. Krochalis
Regional Administrator

NATURE SAVER™ FAX MEMO 01616	Date	# of pages ▶ 1
To Jason McKinney	From John Witmer	
Co./Dept	Co. FTA	
Phone #	Phone # 220-7964	
Fax #	Fax #	

King County

I-405 Corridor Program
EIS Concurrence Form

RECEIVED
OCT 2 8 1999

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: **King County**
Signature: Ron Franks
Title: **Manager, Transportation Planning Division**
Date: **October 28, 1999**

Concur
Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: KCDOT
Signature: Roy Franco
Title: Manager
Date: 8/11/00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

King County
Department of Transportation
201 South Jackson Street
Seattle, WA 98104-3856

May 17, 2002

Michael Cummings, Project Manager
Urban Corridors Office
Washington State Department of Transportation
401 Second Avenue S., Suite 300
Seattle, WA 98104

Subject: I-405 Corridor Program – Concurrence #3

Dear Mr. Cummings:

Enclosed is the King County Department of Transportation (DOT) concurrence on the Preferred Alternative and the Corridor Environmental Program. We understand by signing this concurrence the Department agrees to work in good faith to amend plans and programs consistent with these documents.

Concurrence does not presume future decisions by King County to commit funds to the elements of the corridor program beyond existing plans and programs. As a co-lead on this project, King County DOT supports the transportation vision for the corridor. That vision extends twenty to thirty years into the future and is, of course, subject to appropriate funding and phasing decisions and changing conditions over time.

We look forward to working with the other co-lead agencies and participants as we refine and implement improvements to this critical transportation corridor. If you have any questions about this concurrence, please contact Ann Martin, Principal Transportation Planner, at (206) 263-4711.

Sincerely,

Harold S. Taniguchi
Director, King County Department of Transportation

Enclosure

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency: **King County Department of Transportation**

Signature: Harold S. Taniguchi

Title: **Director**

Date: **May 17, 2002**

Circle one of the below:

Concur **Concur with Comment(s)** (See comments attached) **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- "*Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process.*" At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.

- "*Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations.*"

- "*Agencies will have the option to comment on elements of the project at the appropriate points in the process.*" (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.

- "*It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate.*" Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

Comments:

1) King County supports the vision for the transportation future for I-405. However, given current program revenue forecasts, it is impossible, at this time, to commit the County to pay for all the facilities and services for which it may be considered the lead agency. Financing of the facilities and services called for in the program depends on new sources of funding, including the potential establishment of tolls on a managed lane facility, which may go beyond the current preferred alternative. The County's concurrence with the vision for the I-405 corridor is contingent on this understanding.

2) The County continues to work with the WSDOT and other transit agencies to further refine the transit and demand management programs contained within the preferred alternative.

3) In addition, the County is mindful of the actions taken by the Puget Sound Regional Council (PSRC) in its concurrence with the preferred alternative and incorporates the comments made by the PSRC Executive Board at its April 25 meeting on this topic into its concurrence.

Sound Transit

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency: **Sound Transit**
Signature: Brian O'Sullivan
Title: **Brian O'Sullivan, Project Manager, Systems Integration**
Date: **September 30, 1999**

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Post-it® Fax Note 7671	Date 12/7/99	# of pages ▶ 1
To Sally Marks	From Carol Hunter	
Co./Dept. KCDOT	Co. WSDOT	
Phone #	Phone # 464-6231	
Fax #	Fax #	

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: **Sound Transit**
Signature: **(Brian J. O'Sullivan)**
Title: **Project Manager, Systems Integration**
Date: **July 31, 2000**

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Cc: Steven Kennedy, ST Legal Dept.
Barbara Gilliland, ST Systems Integration

SOUNDTRANSIT

April 4, 2001

RECEIVED
APR 06 2001

Mr. Charlie Howard
Director
WSDOT-OUM
401 Second Avenue South
Suite 300
Seattle, WA 98104-2887

SUBJECT: Sound Transit's Participation in Proposed I-405 Corridor Project Preliminary DEIS Review Process and Schedule

Dear Mr. ~~Howard~~ Charlie:

For over the last 18 months Sound Transit has been an active participant, and a co-lead agency, in the WSDOT I-405 Corridor project. Our Board and staff's participation has ranged from membership on the Executive and Steering Committees, to regular attendance at weekly project team meetings, various open house, brownbag, and jurisdictional briefing events. In addition, on numerous occasions, Sound Transit staff have contributed to and provided review comments on technical and environmental reports associated with high capacity transit alternatives and natural resource impacts. This work is consistent with our original expectations about the responsibilities of a co-lead, partnering agency.

The I-405 project is now moving ahead on a fairly accelerated WSDOT schedule to publish the DEIS (emerging with a preferred alternative) in mid-June, with the objective of completing an FEIS and Record of Decision by the end of the year. The first WSDOT order of business is to distribute a preliminary DEIS for limited comment and then to sort comments and amend the document for printing and formal release as a programmatic DEIS.

In early March, Sound Transit staff received a proposed WSDOT schedule for completing preliminary DEIS reviews and dealing with comments. While the three-week review period looks reasonable, the current schedule also calls for a far more intense – and nearly three-week long—commitment of co-lead agency staff resources to sort through comments and make changes directly to the DEIS document. In essence, WSDOT was suggesting that each co-lead commit one FTE equivalent and other staff support as necessary "up front" to meet its DEIS process and schedule requirements.

At the staff level, my understanding is that Sound Transit has relayed its inability to make full time resource commitments in advance, as well as its concerns about being able to meet all the meeting/deliberations requirements of WSDOT's schedule. At the same time, we have indicated our commitment to do the best we can, and have made some recommendations for making Sound Transit staff participation as efficient as possible.

Central Puget Sound
Regional Transit Authority
Union Station
401 S. Jackson St.
Seattle, WA 98104-2826
Reception 206.398.5000
Facsimile 206.398.5499
www.soundtransit.org

Chair
Dave Earling
Edmonds Councilmember

Vice Chairs
David Enslow
Sumner Councilmember
Greg Nickels
King County Councilmember

Jack Crawford
Kenmore Deputy Mayor
Ann Davis
Lakewood Councilmember
Bob Drewel
Snohomish County Executive
Mary Gates
Federal Way Councilmember
Jane Hague
King County Councilmember
Ed Hansen
Everett Mayor
John Ladenburg
Pierce County Executive
Richard McIver
Seattle Councilmember
Rob McKenna
King County Councilmember
Sid Morrison
Washington State Department of Transportation Secretary
Kevin Phelps
Tacoma Deputy Mayor
Paul Schell
Seattle Mayor
Ron Sims
King County Executive
Cynthia Sullivan
King County Councilmember
Jim White
Kent Mayor

Acting Executive Director
Joni Earl

Board Administrator
Marcia Walker

Some modifications to the process may help at this point in time, but probably will not resolve Sound Transit's basic inability to guarantee that sufficient staff resources can be pledged to complete all the high capacity transit-related review work on WSDOT's timeline.

I am sure you can appreciate the current issues facing Sound Transit and near term demands being placed on staff resources for projects other than I-405. We are nonetheless still very committed to the I-405 project and are interested in exploring different ways to fulfill our co-lead responsibilities during this stage of the DEIS development process.

If you prefer to discuss this matter in greater detail please contact me at (206) 398-5037.

Sincerely,

Agnes Govern
Director, Regional Express

cc: Kim Farley, WSDOT
Mike Cummings, WSDOT
John Okamoto, WSDOT
Perry Weinberg, Sound Transit
Brian O'Sullivan, Sound Transit
Barb Gilliland, Sound Transit

SOUNDTRANSIT

April 22, 2002

Mr. Michael Cummings, Project Manager
I-405 Corridor Program
Washington State Department of Transportation
401 Second Avenue South
Suite 300
Seattle, WA 98104-2862

Re: Sound Transit Board Endorsement of Bus Rapid Transit (BRT) System Development and BRT-supportive High Capacity Transit Investments of the I-405 Corridor Program Preferred Alternative

Dear Mr. Cummings:

I'm please to report that on April 11, 2002 the Sound Transit Board unanimously passed Motion No. M2002-38, endorsing the development of a Bus Rapid Transit (BRT) system, including BRT-supportive high capacity transit investments, as described in the preferred alternative for the I-405 Corridor Program Final Environmental Impact Statement (FEIS).

This action by the Board will enable Sound Transit, a co-lead agency on the I-405 Program, to sign the Final Environmental Impact Statement on schedule in May. A copy of Motion No. M2002-38 is attached

Please note that included in this motion is a directive to Sound Transit staff to provide the Board with a feasibility study regarding Sound Transit's purchase and use of the Burlington Northern Santa Fe right of way that runs from Tukwila north to Woodinville. We expect to have this work completed by this summer.

If you have further questions regarding this Board action or making arrangements for Sound Transit to sign the FEIS, please contact Brian O'Sullivan in our Office of Policy and Planning at 206/398-5292.

Sincerely,

Joni Earl

Joni Earl
Executive Director

cc: George Kargionis, Chair, I-405 Executive Committee

Attachment
XX:xx filename

Central Puget Sound
Regional Transit Authority
Union Station
401 S. Jackson St.
Seattle, WA 98104-2826
Reception 206.398.5000
Facsimile 206.398.5499
www.soundtransit.org

Chair

Ron Sims
King County Executive

Vice Chairs

Dave Earling
President, Edmonds City Coun

John Ladenburg
Pierce County Executive

Jack Crawford
Kenmore Councilmember

Bob Drewel
Snohomish County Executive

David Enslow
Sumner Councilmember

Mary Gates
Federal Way Councilmember

Jane Hague
King County Councilmember

Ed Hansen
Everett Mayor

Doug MacDonald
Washington State Departmen of Transportation Secretary

Richard McIver
Seattle Councilmember

Chuck Mosher
Bellevue Councilmember

Greg Nickels
Seattle Mayor

Julia Patterson
King County Councilmember

Dwight Pelz
King County Councilmember

Kevin Phelps
Tacoma Councilmember

Cynthia Sullivan
Chair, King County Council

Claudia Thomas
Lakewood Deputy Mayor

Executive Director

Joni Earl

SOUND TRANSIT
STAFF REPORT

MOTION NO. M2002-38

Endorsement of I-405 Corridor Program High Capacity Transit Elements (Bus Rapid Transit System Development) included in the Final Environmental Impact Statement's Preferred Alternative

Meeting:	Date:	Type of Action:	Staff Contact:	Phone:
Executive Committee Board	4/4/02 4/11/02	Discussion/Possible Action to Recommend Board Approval Action	Paul Matsuoka, Policy and Planning Officer **Barbara Gilliland, Program Manager** Brian O'Sullivan, Project Manager, Phase II Planning	(206) 398-5070 (206) 398-5051 (206) 398-5292

Contract/Agreement Type:	✓	Requested Action:	✓
Competitive Procurement		Execute New Contract/Agreement	
Sole Source		Amend Existing Contract/Agreement	
Memorandum of Agreement		Contingency Funds Required	
Purchase/Sale Agreement		Budget Amendment Required	

✔ Applicable to proposed transaction.

OBJECTIVE OF ACTION

- Obtain Board endorsement, as a co-lead agency, of the high-capacity transit (HCT) elements (Bus Rapid Transit system [BRT]development) contained in the I-405 Corridor Program Final Environmental Impact Statement (FEIS) preferred alternative, scheduled for publication in April 2002

ACTION

- Approve a motion endorsing the HCT-related elements contained in the I-405 Corridor Program's FEIS preferred alternative and authorizing the Executive Director to take all necessary steps to implement this endorsement

KEY FEATURES

- Authorizes the Executive Director to inform the Washington State Department of Transportation that, as a co-lead agency, the Board endorses the FEIS preferred alternative's HCT-related elements (BRT development). This opens the way to Sound Transit's signing the I-405 FEIS, scheduled for publication in April 2002.

BUDGET

Not Applicable

FINANCIAL IMPACTS

Impact on Current Year Budget:

Not Applicable

Impact on Sound Move Budget:

Not Applicable

Impact on Cost-to-Complete:

Not Applicable

Impact on Subarea(s) Budget(s):

The current availability of unanticipated revenues of the East King subarea has created the potential for certain HCT-related projects identified in the I-405 FEIS to be incorporated in the Sound Move Phase I program (1997-2006).

M/W/DBE AND/OR SMALL BUSINESS PARTICIPATION

Not Applicable

HISTORY OF PROJECT

Sound Transit has been a co-lead agency with WSDOT (lead), King County, the Federal Transit Administration, and the Federal Highway Administration for over two years on this "programmatic" multi-modal corridor planning effort for I-405's future out to 2020 and beyond. We have helped to shape and evaluate the HCT-related elements now being advanced as part of the FEIS Preferred Alternative.

In October 2001, staff briefed the Board on the project and described the alternatives reviewed in the Draft EIS. At that time, staff informed the Board that it recommended that BRT (and BRT related HCT elements) be identified as the preferred alternative and that staff intended to carry this recommendation to the other project co-leads for the purpose of fashioning a preferred multi-modal alternative. The Board also passed a motion authorizing Sound Transit's representative on the I-405 project Executive Committee to voice this position in order to shape the preferred alternative advanced to FEIS analysis (attached as Exhibit I).

Staff has since worked with the other co-leads of the project and BRT is now the identified preferred HCT option for the corridor. The FEIS is now being prepared for publication, and staff needs the Board's formal action on the HCT recommendation, which will then permit the Executive Director to take the necessary actions on the FEIS with the other co-leads.

Prior Board or Committee Actions and Relevant Board Policies

Motion or Resolution Number	Summary of Action	Date of Action
Motion M2001-113	A motion of the Board of the Central Puget Sound Regional Transit Authority to authorize Sound Transit's I-405 Executive Committee representative to recommend specified HCT related elements be incorporated into the I-405 Preferred Alternative.	October 2001
Briefing	I-405 Draft EIS and HCT-related elements (joint presentation with WSDOT staff)	October 2001
Briefing	I-405 briefing and BRT presentation	August 2001
Voice vote (no associated motion)	I-405 and Trans-Lake Co-lead participation authorization	April 2000

CONSEQUENCES OF DELAY

Lack of formal Sound Transit Board endorsement of the HCT elements contained in the preferred alternative would delay our ability to sign off on the FEIS as a co-lead agency, thereby possibly delaying its publication and the subsequent completion of a Record of Decision.

REGIONAL PARTNERSHIP AND COOPERATION

Ongoing:
- ✓ Co-lead agency participation on the project management team
- ✓ Member, Technical Steering Committee Member
- ✓ Executive Committee (Board Member Chuck Mosher)

PUBLIC INVOLVEMENT

In concert with WSDOT, the project management team and committee-related activities, Sound Transit staff has been actively engaged since 1999 in an extensive array of I-405 program public involvement activities, both with individual corridor jurisdictions, public open houses, and public hearing events. The public involvement process has been extensive. In has included work with three project committees including an Executive Committee made up of local elected officials; Steering Committee with local jurisdiction and permitting agency staff; and an citizens Advisory Committee. In addition, ongoing meetings and briefings to local jurisdictions and participation in Open Houses and EIS Public Hearings were conducted.

DESCRIPTION OF POLICY

The Regional Transit Long Range Vision, Adopted May 31, 1996, generally depicts a future regional HCT system by subarea, potential technology and corridor alignment. The I-405 corridor is identified as a key corridor in the system vision, and as a candidate for HCT investments such as HOV/Direct Access facilities, Regional Express bus service and park and ride facilities; and potential rail extensions of light rail, commuter rail, or comparable guideway technology.

Sound Move is implementing a portion of this vision in the I-405 Corridor in the 1997-2006 timeframe.

The I-405 FEIS preferred alternative identifies a set of future HCT investments out to 2020 that are focused on the development of a Bus Rapid Transit system along the length of I-405 comprised of: a "buffered" HOV lane for BRT (and carpools); expanded and more frequent all day express "trunk" bus service; additional direct access and in-line station facilities; expanded transit center and park and ride capacity; and improvements in intelligent transportation systems for transit.

The I-405 FEIS also acknowledges that given projected east–west (cross-lake) transit ridership levels, the "central Eastside core" may warrant more intensive HCT system investments before 2020, and that this potential need should be studied further.

IMPLICATIONS OF POLICY

The I-405 FEIS preferred alternative identifies a Bus Rapid Transit system-based set of improvements that will in large part define future (2020) HCT investments proposed for the corridor in a Sound Transit Phase II plan.

FACTORS TO CONSIDER

With the possible exception of HCT solutions yet to be determined for the "central Eastside core," Board endorsement of the I-405 FEIS preferred alternative specifies BRT as the HCT technology of the future for the Eastside over the next 20 years.

ALTERNATIVES

The Board was briefed in October 2001 on the four alternatives evaluated in the DEIS, each of which contained different HCT technology elements and investment emphases, including fixed guideway (rail) and bus solutions. At that time, the Board expressed support for BRT system development. The FEIS preferred alternative now before the Board for endorsement is consistent with the HCT elements presented at that time.

RECOMMENDATION (S)

The Sound Transit Board should endorse BRT system development for the I-405 corridor as described in the I-405 FEIS preferred alternative.

LEGAL REVIEW

JW 3/21/02

SOUND TRANSIT

MOTION NO. M2002-38

A Motion of the Board of the Central Puget Sound Regional Transit Authority endorsing the development of a Bus Rapid Transit system (BRT), including BRT supportive high capacity transit investments, as described in the preferred alternative for the I-405 Corridor Program Final Environmental Impact Statement and authorizing the Executive Director to take the necessary steps to implement this endorsement and to direct Sound Transit staff to provide the Board with a feasibility study regarding Sound Transit's purchase and use of the Burlington Northern Santa Fe right of way that runs from Tukwila north to Woodinville.

Background:

In April 2000, the Sound Transit Board authorized the participation of Sound Transit as co-lead in the I-405 Corridor Program project, a WSDOT coordinated programmatic environmental assessment of transportation investment options out to the year 2020. The draft environmental impact statement was published in August 2001.

In October, the Sound Transit Board received a briefing on those high capacity transit elements (specifically BRT related) recommended by staff for inclusion in the preferred alternative. The Board also passed a motion authorizing its representative on the project executive committee to urge incorporation of these recommendations.

Late in November 2001, the I-405 project executive committee identified a preferred alternative for advancement to the final environmental impact statement (FEIS) stage that contained the full range of high capacity elements identified as priorities by Sound Transit.

Based on staff review of the upcoming FEIS preferred alternative's high capacity elements about to be published as part of a broader multi-modal transportation program, Sound Transit's interests appear adequately addressed.

The I-405 project is now at the point of seeking concurrence from cooperating entities on the I-405 FEIS preferred alternative. As a matter of policy it is appropriate to obtain formal Sound Transit Board endorsement of the preferred alternative's HCT related elements included and in the FEIS; and to authorize the Executive Director to transmit a letter of support for those elements to WSDOT on behalf of the Board. The preferred alternative will form the basis of a final recommendation by the I-405 Executive Committee in April/May and the record of decision, now expected in Summer 2002.

Motion:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that Sound Transit endorses the development of a Bus Rapid Transit system (BRT), including BRT supportive high capacity transit investments, as described in the I-405 Corridor Study FEIS preferred alternative and that the Executive Director be authorized to take the necessary steps

to implement this endorsement and to direct Sound Transit staff to provide the Board with a feasibility study regarding Sound Transit's purchase and use of the Burlington Northern Santa Fe right of way that runs from Tukwila north to Woodinville.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on April 11, 2002.

Bob Sims
Board Chair

ATTEST:

Marcia Walker
Board Administrator

Washington State
Department of Transportation

September 29, 1999

TO: I-405 Corridor Program Steering Committee
FR: Michael Cummings, WSDOT Project Manager
RE: I-405 Corridor Program Purpose and Need Statement

Requested Action: Concurrence on Purpose and Need Statement

As one of the pilot projects under the "Reinventing NEPA" process, we are requested to obtain written approval of the Purpose and Need Statement from Agencies and Tribes with Jurisdiction (ATJ) prior to proceeding to the concepts development and screening phase. ATJ are defined as "resource, regulatory and jurisdictional agencies, tribe or groups that have the ability to stop or deny a project either through a permit action, or project objection with regulatory weight".

Agencies and Tribes with Jurisdiction are expected to sit on the Steering Committee. At a minimum the primary resource agencies (EPA, Corps of Engineers, US Fish and Wildlife Service, etc.) are required to sign the Concurrence Agreement. The balance of ATJ membership and others who may sign the Concurrence are not completely defined, so the I-405 Corridor Program has proposed that Steering Committee members sign the Concurrence.

At its September 8 meeting, the Steering Committee considered the draft Purpose and Need Statement that had been advanced by the Executive Committee, and approved a revised version of that Statement. This revised Purpose and Need Statement containing the Steering Committee's comments was presented at the September 21 Executive Committee meeting. The attached Purpose and Need Statement reflects the consensus from the September 21 Executive Committee meeting. The Executive Committee made a single change, substituting "maintenance or enhancement" in the first bullet point under the Purpose in order to mimic the wording contained in the second bullet point. In all other respects, the Statement is identical to that approved previously by the Steering Committee.

Concurrence of the ATJ on the Purpose and Need Statement represents a major milestone in this program. Timely accomplishment of this milestone is critical to maintaining the program schedule. Please indicate your concurrence on the attached Concurrence Agreement form, and return the completed form to me at your earliest convenience.

If you have any questions, please call me at 206-464-6223.

I-405 Corridor Program
EIS Concurrence Form

Date sent:: September 29, 1999

Concurrence Point: 1.*Purpose and Need* -
The *need* is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor that encompasses the I-405 study area from Tukwila to Lynnwood in a manner that is safe, reliable, and cost-effective.

The *purpose* of the proposed action is to provide an efficient, integrated, and multi-modal system of transportation solutions within the corridor that meet the project need in a manner that:

- provides for maintenance or enhancement of livability for communities within the corridor;
- provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- supports a vigorous state and regional economy by responding to existing and future travel needs; and
- accommodates planned regional growth.

Agency:
Signature:
Title:
Date:

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Cummings, Michael

From: Steven Landino [Steven.Landino@noaa.gov]
Sent: Thursday, July 13, 2000 5:58 PM
To: cumminm@WSDOT.WA.GOV
Subject: I-405 mtg in Bellevue 6/12

Importance: High

Mike,

Once again, I am sorry our first meeting and discussion was about something as difficult as staffing a meeting at the 11th hour. We usually fail in being able to accomodate that. The work pressures, time committments and expectations currently on NMFS habitat branch are tremendous. Tom's situation is a tough one as I think you know.

Here's what I suggest reading for the group from NMFS:

"It is regrettable that NMFS was unable to attend this meeting today and interact with you all on the potential issues associated with the I-405 project development and EIS. An emergency for the NMFS staff (Tom Gibbons) dedicated to this project, precluded his attendence. Furthermore, the short time frame (< 24hrs) we had to find a staff replacement that could speak to the potential issues of this project was too hard to overcome. Tom left me an email on this project, so I will give you some idea of where NMFS is at in this part of the process, and ask that Mike Cummins read it to the meeting participants. I am sorry we could not be here in person today and will do our very best to keep this from happening in the future. Emergencies do unfortunately arise on occassion. This is one of those times.

NMFS' approach to project review and design is generally the same in most cases. Can the project be made to "meet the essential habitat needs" of listed fish, in this case Puget Sound Chinook. Specifically, will the project sustain essential ecological functions that support Chinook and their habitat. If we cannot affirmatively answer that, we must role up our sleeves and work to modify the project so that we can.

Currently, NMFS is struggling to see how alternatives 1, 2, and 3 meet the needs of fish and whether a watered down version of alt 4. is much different from the current three alternatives. We are interested in developing an alternative that we can support.

Under the SAC process, we feel obliged to stop the process (i.e. NOT concur) if we feel that there is a strong possibility that the alternatives developed therein will not pass muster in NMFS ESA analysis. NMFS habitat staff, when asked, were all are in agreement that the current proposals do not minimize their effects to chinook in a manner that could result in a finding of "not likely to adversely affect". Further, NMFS staff agree that current regulation of growth related development in the I-405 area is not adequate to meet the needs of fish. This project currently exacerbates those concerns, and it is our understanding that the project is to be designed to accomodate or allow for an additional 200,000 people in the I-405 area.

So what are some of the effects that will occur from this proposal or the identified alternatives? We cannot prejudge the final ESA determination without knowing the particulars of the project that will emerge. However, enough information on the environmental baseline of the I-405 corridor area exists to know that these proposals are hanging on the edge of not meeting the needs of fish, if not creating further harm to the Chinook in the Puget Sound ESU. We will need to evaluate the direct, indirect and cumulative effects of the project in our ESA analysis. We are not simply crafting a NEPA document. The preferred alternative that eventually is the subject of a section 7 consultation, must not jeopardize the continued existence of Puget Sound Chinook.

In our discussions to date with DOT, NMFS has focused on the direct effects caused by the transportation project. NMFS has not yet shared our concerns

regarding the indirect effects of development (which are likely equal or greater than the construction of the proposed projects - and one of the needs of this project is to accomodate regional planned growth for 200,000 people). Direct and indirect effects will include modification of riparian zones, water quality and quantity, and stormwater effects to peak and base flows for the rivers, stream and creeks affected by this project. It is important to note for jurisdictions present that are also involved in theTri-County conservation planning discussions, that considerations on stormwater and management zones that can be meaningfully addressed in that forum, may have an impact (positively or negatively) on how this project ultimately fares regarding fish impacts in the I-405 area.

I can assure you all, however, that NMFS will work with you to get a design and an alternative that works for fish and transportation needs, and we will remain at the table as long as there are discussions on the development of a transportation solution for the I-405 corridor. I am very sorry it did not work out today. Please accept my sincerest apologies."

Steve Landino
Washington Habitat Branch Chief

July 20, 2000

TO: I-405 Corridor Program Steering Committee
FR: Michael Cummings, WSDOT Project Manager
RE: I-405 Corridor Program Draft EIS Alternatives

Requested Action: Concurrence on Draft Environmental Impact Statement Alternatives

As one of the pilot projects under the "Reinventing NEPA" process, we are requested to obtain written approval of the alternatives selected for detailed evaluation in the Draft Environmental Impact Statement (DEIS) from Agencies and Tribes with Jurisdiction (ATJ) prior to proceeding to the preparation of the DEIS. ATJ are defined as "resource, regulatory and jurisdictional agencies, tribe or groups that have the ability to stop or deny a project either through a permit action, or project objection with regulatory weight".

Agencies and Tribes with Jurisdiction are expected to sit on the Steering Committee. At a minimum the primary resource agencies (EPA, Corps of Engineers, US Fish and Wildlife Service, National Marine Fisheries Service, etc.) are required to sign the Concurrence Agreement. The balance of ATJ membership and others who may sign the Concurrence are not completely defined. The I-405 Corridor Program has proposed that Steering Committee members sign the Concurrence Form. This is the same was done for the initial Concurrence for the Statement of Purpose and Need.

At its May 9, 2000 meeting, the Steering Committee considered the three DEIS action alternatives that were advanced by the Executive Committee, and approved at their May 23, 2000 meeting. Subsequently, a request was made to consider an additional alternative. The fourth action alternative was reviewed and approved at a July 14, 2000 joint meeting of the Steering and Executive Committee. Attached is a description of the four DEIS action alternatives that reflects the consensus from the July 14th meeting of the Executive Committee and Steering Committees.

Concurrence of the ATJ on the DEIS Alternatives represents a major milestone in this program. Timely accomplishment of this milestone is critical to maintaining the program schedule. Please indicate your concurrence on the attached Concurrence Agreement form, and return the completed form to me by July 31, 2000, if possible.

If you have any questions, please call me at 206-464-6223.

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency:
Signature:
Title:
Date:

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

Return to:

Michael Cummings
WSDOT
Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2862
cumminm@wsdot.wa.gov

Michael

I-405 Corridor Program
EIS Concurrence Form

Date sent:: July 20, 2000

Concurrence Point: 1.*Draft EIS Alternatives* -

- Attached as Exhibit A, dated July 20, 2000 is a general description of the action alternatives that are proposed to be considered in the Draft Environmental Impact Statement for the I-405 Corridor Program. These four alternatives and a "No-Action" alternative will be the focus of the environmental investigation and disclosure in this document.

Agency: WSDOT
Signature: [signature]
Title: REGIONAL ADMINISTRATOR
Date: 9-1-00

Concur

Non-concur
(Circle one)

If the agency has selected Non-concur, they must include an explanation of what must be changed so that the agency could Concur: (describe here or attach)

file

Washington State Department of Transportation
Sid Morrison
Secretary of Transportation

Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2887

(206) 464-5878
Fax (206) 464-6084

September 22, 2000

Mr. Robert A. Turner
Washington Area Director
National Marine Fisheries Service
510 Desmond Drive SE, Suite 103
Lacey, Washington 98503

Re: Non-concurrence on Proposed Range of Alternatives for I-405 Corridor Program

Dear Mr. Turner:

The I-405 Corridor Program Executive Committee and the lead agencies for the on-going Environmental Impact Statement (EIS), including the Federal Highway Administration, Federal Transit Administration, Washington State Department of Transportation, King County, and Sound Transit, are very concerned about the position expressed by the National Marine Fisheries Service (NMFS) in your letter dated September 8, 2000. In that letter, you identified that NMFS would not concur with advancing the four proposed action alternatives for detailed study and evaluation in the Draft EIS. These alternatives were developed over a period of six months with the participation and under the scrutiny of a wide range of experts in fisheries, habitat, water quality, land use, transportation, and other technical fields. This range of alternatives has now been agreed to by 23 federal, state, regional, and local cooperating agencies and agencies with jurisdiction that are participating in project oversight.

We have worked diligently with your staff over the past three months specifically, to develop an additional fourth action alternative that responds directly to the suggestions and concerns of NMFS as they have been expressed to us. In so doing, we have been careful in our attempt to ensure that the alternative contains an appropriate combination of transportation solutions and environmental protection so that it remains viable and consistent with the adopted statement of purpose and need for the project. It has been expressed that NMFS now believes this new alternative is neither environmentally sufficient nor consistent with the project purpose and need.

Thus, we request that NMFS join us in the Conflict Resolution process provided for in the "Reinventing NEPA and the Transportation Decision Making Process." This is the process that NMFS, Federal Highway Administration, Federal Transit Administration, Washington State Department of Transportation agreed to as part of the Joint Process Improvement Team for Reinventing NEPA and the Transportation Decision Making Process.

Recognizing the months of staff coordination and extensive record of communication that already have preceded us getting to this point, we strongly request that this conflict resolution process start at Level II. Doing so would initiate discussion among the appropriate management-level decision makers. According to Section 4.1.2 of the conflict resolution guidelines:

> *Within five calendar days of referral, the management will schedule a meeting to resolve the issue(s). Management will use discussion, facilitation, mediation, and some consensus determination method, which will be defined at the time and is agreeable to all parties, to resolve the issue(s) as quickly as is practical.*

Specific issues that we propose be addressed and resolved include the following:

1. We believe that it is too early in the process to conclude that none of the alternatives can be designed or implemented to satisfy the requirements of Section 7(a)(2), even with incorporation of environmental retrofits, habitat enhancements, mitigation, and other affirmative conservation measures.

2. As discussed above, the fourth action alternative was developed at the request of and in close coordination with NMFS staff. Its mix of transportation modes and projects, emphasis on minimization of new impervious surface, and attempts to avoid environmentally sensitive areas are in direct response to the guidance that was provided by NMFS. We developed supplemental transportation performance data and provided frequent feedback to NMFS as we worked to satisfy these requests and seek opportunities for improvement.

3. We understand that any alternative must be thoroughly evaluated and secure environmental approvals based on its merits before it can be implemented. Prior to that it is simply one of a number of proposals. Therefore, it is confusing how implementation of the new fourth alternative "likely would lead to yet another traffic capacity-increasing proposal" and that the potential for such a proposal is a foreseeable effect that would have to be evaluated under the ESA. This suggests a situation whereby NMFS would not agree to consideration of an alternative that does not adequately relieve traffic congestion because it could invite future proposals with potential unknown adverse effects and would not agree to consideration of an alternative that adequately relieves traffic congestion because it would be viewed as having too great of environmental effects. If this is a correct interpretation of NMFS position, it would make it difficult for any regional transportation planning to proceed.

4. By your reference to "elements of fish habitat that would be indirectly affected by a transportation project" we assume you are referring to land use, development, and sensitive areas that are regulated by local jurisdictions throughout the project area. These and other elements of the environment such as stormwater management,

water quality, and groundwater, among others, are scoped for evaluation in the Draft EIS; however, we must first advance the range of reasonable and feasible alternatives to the Draft EIS.

We would ask that you please contact me at (206) 464-6223 regarding initiation of this conflict resolution process. Please be assured that we appreciate the attention that you and your staff continue to give to the I-405 Corridor Program.

Sincerely,

Michael Cummings
Corridor Planning Supervisor

cc: Jim Leonard, FWHA
John Witmer, FTA
Roy Francis, King County
Brian O'Sullivan, Sound Transit
Phil Fordyce, WSDOT

October 17, 2000

Larry Blain
Principle Planner
Puget Sound Regional Council
1011 Western Avenue, Suite 500
Seattle, WA 98104-1035

Subject: I-405 Corridor Program, Air Quality Methodology

Dear Mr. Blain,

At the request of the Washington Department of Transportation, Parson Brinckerhoff is preparing the air quality analysis for the EIS for the I-405 Corridor Program. It is WSDOT's desire that the analysis be consistent in methods and assumptions with the latest planning in the Puget Sound Region.

To facilitate the completion of this work, WSDOT is requesting the PSRC provide the macros, programs, input files, and any available documentation to calculate regional emissions for 2020 consistent with the methodology of the regional conformity analysis. The materials may be sent to Lawrence Spurgeon at Parsons Brinckerhoff, 999 Third Avenue, Suite 2200, Seattle, WA 98104. Any questions may also be addressed to Lawrence at (206) 382-5285 or spurgeon@pbworld.com.

WSDOT sincerely appreciates the cooperation of PSRC in working towards our common goals of improved mobility within the Puget Sound region.

Sincerely,

Michael Cummings
SE 405 Corridor Project Manager

Washington State Department of Transportation
Sid Morrison
Secretary of Transportation

Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2887

(206) 464-5878
Fax (206) 464-6084

January 8, 2001

Honorable John Daniels, Jr.
Muckleshoot Tribe
39015 172nd Ave. SE
Auburn, WA 98092

RE: Opportunity to Provide Input to the I-405 Corridor Study and Trans-Lake Washington Study – Project Updates

Dear Mr. Daniels:

On behalf of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), Sound Transit, and King County, the Washington State Department of Transportation (WSDOT) would like to present to you a project overview session.

During the session, members of the project teams, including Lead Agencies and their consultants, will provide a general description of each of the projects, describe where we are in the processes, and provide a timeline for each of the projects. At that time, we would like to verify whom our project staff should remain in contact with and provide a list of persons you can send comments or information to. Attached to this letter is a brief background for each of the two projects.

We encourage you to invite all persons that you think would be interested, including staff representatives from Natural Resources, Fisheries, and Cultural Resources.

Where and When

The project teams would like to meet with you at your earliest convenience and suggest early in February. WSDOT has several conference rooms in their facility located in Shoreline and Sound Transit and King County have conference rooms available in downtown Seattle. However, we would be happy to meet with you at your offices or at another facility of your choice.

Please contact Kimberly Farley with the Office of Urban Mobility, WSDOT at (206) 464-6211 or by email at farleyk@wsdot.wa.gov to set up this meeting.

Sincerely,

Mike Cummings
I-405 Project Manager, WSDOT

Les Rubstello
Trans-Lake Project Manger, WSDOT

Cc: Donna Hogerhuis/Cultural Resources
Isabel Tinco/Natural Resources
Karen Walter fisheries

BACKGROUND

I-405 Corridor Program

The goal of the I-405 Corridor Program is to select, from the array of viable alternatives identified, a set of solutions that will meet the objectives of the purpose and need statement and can be implemented over the next 20 to 30 years. The Corridor Study will look at transportation improvements from SR 167 to the I-405 connection to I-5. The environmental impact study process is underway, guided by the input from the three project committees. The co-lead agencies include FHWA, FTA, WSDOT, King County, and Sound Transit. It is also important to note that this is one of three Re-Inventing NEPA pilot projects being tested in Washington State and though it is following the classic NEPA process in many ways, we are being challenged to "think outside the box".

Where the I-405 EIS is in the Process

Three committees, consisting of elected officials, citizens, and representatives of jurisdictions in the I-405 corridor have developed four alternative solution sets to address the challenges of I-405. These four alternatives, along with a "no action" alternative, will be analyzed in a programmatic environmental impact statement (EIS). The I-405 Corridor Program is envisioned as a blueprint for a system that will be a mix of different transportation solutions that work together for decades into the future. The committees are currently deciding on a Preliminary Preferred Alternative and we would like your input in the process. If you would like to obtain additional information regarding this project, please visit the project website at http://www.wsdot.wa.gov/I-405/.

Trans-Lake Washington Project

The goal of the Trans-Lake Washington project is to increase mobility across Lake Washington in the SR 520 corridor. The study area approximately includes the SR 520 interchange with I-5 to the SR 520 into Redmond. The product of this process is anticipated to be a project specific EIS.

The project team has been formulated using the same structure as the I-405 team. There are the same types of committees that serve the same types of functions. The same co-leads are also involved, with the exception of King County.

Where the Trans-Lake Washington Project is in the EIS Process

During scoping, several alternatives were identified. The first screening of alternatives by the three committees has been completed. Agreement was reached on the alternatives that will be further developed and evaluated, prior to selection of the alternatives to be analyzed in an EIS. The alternatives currently being studied will be presented at this meeting. If you would like to obtain additional information regarding this project, please visit the project website at http://www.wsdot.wa.gov/translake/.

Washington State Department of Transportation
Sid Morrison
Secretary of Transportation

Office of Urban Mobility
401 Second Avenue South, Suite 300
Seattle, WA 98104-2887

(206) 464-5878
Fax (206) 464-6084

January 8, 2001

Robert Turner
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Habitat Program/Olympia Field Office
510 Desmond Drive SE, Suite 103
Lacey, Washington 98503

RE: I-405 Corridor Program – Concurrence Point II, Alternatives to Include in the DEIS

Dear Mr. Turner:

Thank you for your letter dated October 24, 2000, which provides concurrence with comments on Point II, Alternatives to Include in the Draft Environmental Impact Statement (EIS) in the Re-Inventing NEPA Process. Please note that the Program team appreciates and will consider comments submitted at any time during this process.

Agency representatives for this program have reviewed your comments and agree that most, if not all, of the issues you addressed need to be discussed and resolved in the context of the ESAs' application to this region. For ease of discussion, these comments have been organized into three general categories:

- Global: Comments that deal with general ESA applications and concerns in a growing, rapidly urbanizing metropolitan area, i.e., the central Puget Sound Region.
- Planning Level: Those comments that apply to the issue of taking or not taking a transportation action in the I-405 Corridor and differentiating the environmental impacts (ESA and other) of those actions. This is the subject of this program and the EIS.
- Project Level: Project level detail and analysis that are typically found in a Biological Assessment (BA) leading to a granting of construction permits meeting ESA requirements.

Background

Before addressing NMFS specific comments, it is worthwhile to review the context of this study. The goal of the I-405 Corridor Program is to select, from the four viable alternatives identified, a package of solutions that can be implemented over the next 20 to 30 years. This is also one of the Re-Inventing NEPA pilot projects being tested in Washington State and though it is following the classic NEPA process in many ways, we are being challenged to "think outside the box".

When this EIS is completed and the Record of Decision has been issued, we anticipate that the following questions will be addressed: Should existing regional and local plans and programs be

amended? If so, how? Which alternatives or elements of those alternatives should be recommended? With what type of modes and at what service level? Where are the changes to I-405 and other modal facilities approximately located? Because there is limited design detail available to answer these questions, we will only be able to generally locate where most improvements will be made within the corridor. In short, this is a planning level EIS *not* a project level EIS.

So, what are we planning for? We are planning for the 200,000 new people that are projected to move to the East King County area in the next twenty years. This program will not cause the projected growth in population; it will take place in this area whether or not the I-405 corridor is improved. The object of this study is to identify ways to keep the transportation system functioning in a safe and efficient way in the midst of a growing region. We will look at the potential redistribution of development that may result from the implementation of the alternatives and the extent to which the alternatives support the objectives of the Growth Management Act.

Global

The Co-lead agencies (Sound Transit, King County, USDOT and WSDOT) would like to meet with representatives of your agency to discuss the issues that would apply to any future transportation investment to seek clarity on the issues you have raised. We would like to do this early this year.

Planning Level

In the discipline reports and the EIS, there will be planning level detail and planning level analysis. As such, much of the information still may not be as detailed as NMFS has suggested. In some instances the information is not available, or the recommended analysis goes beyond the definition of baseline conditions. However, the discipline reports do discuss many of the points brought up by NMFS. In addition, several of the points made by NMFS are issues normally addressed in a BA when a more detailed level of design is available.

The following list summarizes many, but not necessarily all, of the issues and data that will be presented in discipline reports and summarized in the EIS for this planning level study:

- Environmental baseline conditions in the action area. The study cannot quantify in detail but will identify as much as practical.
- Identify scientific literature data gaps, as appropriate, when there is desirable information unavailable.
- Minimization Measures.
- In general, information will be provided regarding the status of habitat and its use by threatened and endangered species as a result of adoption of any of the 1-405 corridor program alternatives including the indirect effects of the alternatives.

- In general, information regarding the quantity of impervious surface versus impervious, and areas remaining in forest cover in the area affected by the program, will be provided in the water quality discipline report and the EIS. When and if construction projects are identified, these issues will be described in detail in the stormwater reports.
- Potential changes in land use and urbanization will be discussed in general in the EIS.
- Wetlands present in the vicinity of the project will be identified and discussed in the wetland discipline report and the EIS and standard approaches to impact avoidance, minimization and mitigation will be explored in these documents as well.
- Infiltration potential of soils will be evaluated using data available from NRCS in the stormwater analysis)
- The general geology and natural hazards that exist in the vicinity of the alternatives will be discussed in the discipline reports and the EIS. The relation of these issues to salmonids will be addressed in BAs where appropriate as part of baseline conditions, if and when construction projects are identified.
- The number, area, and location of new or expanded stream and wetland crossing structures that would be required for each of the alternatives will be estimated and discussed as part of the EIS. Maintenance commitments will also be discussed.
- Generally, climate and stormwater discharges will be addressed in the stormwater discipline report and the EIS.

Because the objective of this program is to make a planning-level decision and not to construct a project, at this level a BA will not be prepared.

Project Level

It is anticipated that projects will emerge out of this effort that will require BAs and permits. At that point, a high level of design detail will be developed, and BAs conforming to Section 7 of the Endangered Species Act will be prepared. In those BAs, the rest of your comments and concerns should be addressed.

Thank you again for providing your comments and concerns at this early stage. This type of thoughtful input provided up front, will help meet the objectives of ESA and the growing need for transportation solutions.

Sincerely,

Michael Cummings
I-405 Project Manager, WSDOT

Cc: Project Management Team

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300

360-705-7000
TTY: 1-800-833-6388
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July 24, 2001

Ms. Sandra L. Manning
Washington State Department of Ecology
PO Box 47703
Olympia WA 98504-7703

RE: May 15, 2001 letter to Michael Cummings, WSDOT, from Sandra Manning, Ecology, regarding comments on the Preliminary Draft Environmental Impact Statement (PDEIS)

Dear Ms. Manning:

Thank you for reviewing and providing comments on the I-405 Corridor Program Preliminary Draft Environmental Impact Statement. As you know, we received approximately 700 comments on the PDEIS from the cooperating agencies. All comments were reviewed and our responses were incorporated into the comment response tables that you mention in your letter dated May 15, 2001. In that letter, you indicated that you were comfortable with our responses to most of your comments, but felt that a few remaining issues needed to be addressed in order for a decision on a preferred alternative to surface. The following are our responses to the five remaining issues mentioned in your letter.

1) We have spoken with the consul[illegible] that the format of the information presented in the PDEIS for each alternative makes it difficult to compare the different components that occur within each alternative. To address this issue, we plan to expand the DEIS Chapter 2 (Description of Alternatives) to include a table clarifying the system elements contained in each alternative. This table will better identify which individual components comprise a given alternative. All of the impacts are accounted for in each alternative; however, at the programmatic level, separating components of an alternative for individual impact analysis was not possible.

   Furthermore, we will not be able to add a new alternative to be analyzed in the DEIS because the committee members have already agreed on which alternatives to include under the Re-Inventing NEPA Consensus Point #6.

2) We realize that the Preliminary Preferred Alternative (PPA) was not analyzed separately in the PDEIS. When the PDEIS was written, the I-405 Co-Lead Agencies (Co-Leads) wanted to include information about the PPA only to give the reviewer

3) some insight regarding the direction the committees seem to be headed in the development of a preferred alternative. Because no decision has been made with regard to implementing any alternative, the Co-Leads have decided to remove the discussion about the PPA from the DEIS. The final recommendation of a preferred alternative will include an analysis of the preferred alternative in the Final EIS.

4) I contacted Don Samdahl, Mirai Associates, regarding an answer to your request for more detail on the significance of a 7-12 minute savings in travel time. In response to your inquiry, Don provided the following information:

> Transportation Mobility is measured within the transportation analysis by two primary measures—travel time between major origins and destinations, and levels of congestion. The travel time measure is summarized in PDEIS Tables 3.12-2 through 5. This measure documents the changes in p.m. peak hour travel time between several activity centers within the area. Table 3.12-2 in particular is the source of the '7 to 12' minute saving discussed at the May 9, 2001 steering committee meeting. This travel time saving is during the heart of the most congested afternoon peak hour, and, in the case of Alternative 3, represents around a 10-15% reduction in overall travel time. In terms of transportation improvements, this is considered a significant improvement. The Highway Capacity Manual, which is the national guidebook for traffic analysis, typically equates a 10% change in travel time or delay as being equivalent to one-rung on the Level of Service scale (i.e. the scale that ranges from A to F). This change can make the difference in a local jurisdiction being able to meet its Growth Management concurrency requirements. It is notable that the transit travel time-savings for Alternative 3 (documented in Tables 3-12-4 and 5) are even more pronounced.
>
> In addition to the peak hour travel times, the PDEIS also documents the change in 'Hours of Congestion', as shown in Table 3.12-6. This measure provides a more comprehensive look at the chan[illegible]tire day, not just the peak hour. Alternative 3, for example, reduces the average number of congested hours on I-405 from 7 to 5 hours, which is better than current conditions. For all facilities within the study area (i.e. freeways and arterials), the average congestion would be improved with Alternative 3 to conditions similar to current levels, despite a 50%+ increase in corridor travel demand.

The DEIS will contain a better explanation of the significance of the savings in travel time.

5) We understand the importance of clarifying the High Capacity Transit (HCT) discussions within the DEIS. The HCT for Alternatives 1 and 2 is defined as a physically separated, fixed guide-way system. The HCT in Alternative 3 is defined as bus rapid transit operating in improved HOV access lanes on the existing freeway system. This will be more clear in the DEIS.

6) Consistent with Purpose and Need of the I-405 Corridor Program, the intent is to support planned land use. The planned land use is considered to be those plans adopted by the individual jurisdictions, the adopted regional plan and the State of Washington growth management program. Each of these plans includes provisions to concentrate development in identified activity centers and to link those activity centers and rest of the region with transportation investments.

   The alternatives that have been developed attempt to do this employing a variety of conceptual transit strategies. Alternative 3, for example, does this by utilizing a bus rapid transit (BRT) form of high capacity transit. BRT can be operated in a variety of ways from existing roads to separated guideway. The system is proposed to link existing and planned activity centers in the region and include service and stations similar to a rail system. This service is intended to support the compact centers and pedestrian and transit oriented development in these centers. The paragraph below is from the Federal Transit Administration web site.

   "*Integration of transit development with land use policy: Bus Rapid Transit and compact, pedestrian-oriented land use development are mutually supportive. The clustering of development has the additional benefit of conserving land and promoting the vitality of neighborhoods and urban commercial centers. Bus Rapid Transit can be most effective when integrated within a broader planning framework encompassing land use policies, zoning regulations, and economic and community development.*"

Once again, thank you for providing comments on the PDEIS. With the above responses to the remaining issues identified in your letter, I am confident that the DEIS can be used as a tool in recommending a preferred alternative.

Sincerely,

Michael Cummings, Corridor Planning Supervisor
I-405 Corridor Program

cc: Keith McGowan
Kimberly Farley
Christina Martinez
Terry Swanson, Ecology
I-405 Correspondence File

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

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October 3, 2001

Mr. Steve Landino, Branch Chief
National Marine Fisheries Service
510 Desmond Drive SE, Suite 103
Lacey, WA 98503

Dear Mr. Landino:

Thank you for your agency's participation in the I-405 Corridor Program.

I am writing this letter to reinforce the continued need for the direct involvement of the National Marine Fisheries Service in the I-405 Corridor Program. This program is of critical importance to the State of Washington and to the Puget Sound region. We also understand that there are critical fisheries issues involved in this decision. The past involvements of David Hirsh and Tom Gibbons have provided information necessary to get to a decision that can be implemented.

We look forward to, and need, your agency's continued involvement in the next few months. During this time frame the I-405 Committees will be using the environmental impact information to develop a preferred alternative. Part of this recommendation proposes to include the environmental process and objectives necessary to ensure the survival and recovery of threatened and endangered species. This proposed process is set up to enable the subsequent project level environmental review, including biological assessment where necessary, to be conducted in a positive and cooperative manor.

We are committed to and believe that this program offers a unique opportunity to provide a positive impact on both transportation and fisheries resources. We believe the success of our efforts will be greatly enhanced by NMFS's continued participation.

If you have any questions please call me at 206-464-6223. Our office address is 401 Second Avenue South, Suite 300, Seattle, WA. 98104-2887.

Sincerely,

Michael Cummings
I-405 Corridor Program Manager

MC:cm
cc: David Hirsh, NMFS
Tom Gibbons, NMFS
Gloria Skinner, WSDOT

From: Paul Bergman [mailto:pbergman@prrbiz.com]
Sent: Monday, October 08, 2001 5:21 PM
Subject: I-405 Program Materials

TO: I-405 Program Citizen and Steering Committees
CC: Executive Committee

Attached are a workbook and worksheet developed to assist you in your preferred alternative deliberations. The worksheet should be used to record your draft recommendations. Hard copies are also being mailed to each committee member. More detailed instructions are listed in the workbook.

The objective is to identify areas of consensus among the committees and any outstanding issues where we need to focus our remaining time. Understanding you have not received all of the public comments on the Draft EIS, we are asking you to fill out and return the worksheet with the information you have available.

Your worksheet recommendations are non-binding; they are intended to assist program staff in structuring draft recommendations and discussions for your upcoming meetings. Once you have received the benefit of all public comments, we will finalize preferred alternative recommendations at your November meetings.

Please return your worksheet by October 19, 2001 the following ways:
(1) E-mail: paul@prrbiz.com
(2) Fax: (206) 623-0781, Attn: Paul Bergman
(3) Mail: I-405 Program, C/O PRR,
1109 First Avenue, #300, Seattle, WA 98101

Questions? Please call Paul Bergman, (206) 623-0232, ext. 248

> <<paWorkbookFINAL.PDF>> <<PA Worksheet - E-mail.doc>>

Decision Making Guide and Worksheet



Washington State
Department of Transportation

How to Use Your Workbook

This workbook was developed to assist you in your preferred alternative deliberations. It includes informational resources and a worksheet to record your draft recommendations. An electronic version has also been distributed.

The objective of this exercise is to identify areas of consensus among the committee members and any outstanding issues on which we need to focus our remaining time. For your reference, the workbook contains the following sections:

1. Recommendations Worksheet
2. Evaluation Criteria
3. Descriptions of the Major Alternative Elements
4. Cost Estimates

Understanding you have not received all of the public comments on the Draft EIS, we are asking you to fill out and return the worksheet with the information you have available at this time.

Your worksheet recommendations are non-binding; they are intended to assist program staff in structuring draft recommendations and discussions for your upcoming meetings. Once you have received the benefit of all public comments, we will finalize recommendations.

When filling out the worksheet, you'll note the major elements are numbered and linked to their descriptions for easy reference. We are asking you to also identify any conditions of support:

- Actions that must be taken before you will support an element, i.e. ongoing monitoring, design requirements, operations;
- Specific projects on the list that should be removed or modified; or
- Project elements that require additional study before you can decide, and what kind of study is needed.

Additionally, please indicate your rationale if an element should be included or not included in the preferred alternative, based on the listed criteria (transportation, environmental, other).

Worksheet Submittal

DEADLINE: OCTOBER 19

Return your worksheet to:

(1) E-mail: paul@prrbiz.com

(2) Fax: (206) 623-0781, Attn: Paul Bergman

(3) Mail: I-405 Program, c/o PRR, 1109 First Avenue, #300, Seattle, WA 98101

Questions? Please call Paul Bergman, (206) 623-0232, ext. 248

What is the Purpose of the Preferred Alternative?

The I-405 Corridor Program Preferred Alternative (PA) will serve as planning and policy guidance, or vision, for future transportation improvements in the I-405 corridor. The PA will direct future site-specific, project-level, transportation planning and design studies.

The Preferred Alternative will broadly identify an optimal mix of transportation and demand management investments within the I-405 corridor to improve movement of people and goods throughout the I-405 corridor, reduce foreseeable traffic congestion, and satisfy the overall program's purpose and need.

What Happens Next?

The draft and final Environmental Impact Statements (EIS) for this program, when completed, will focus on the analysis of environmental impacts of various combinations of improvements for transit, cars, trucks and non-motorized travel. It will also look at how these combinations function together as a system to solve corridor-wide transportation problems.

It is assumed that existing environmental regulations will be complied with. It is, however, the intent of the program co-leads to implement measures, including further avoidance, minimization and mitigation, to lessen the effects of transportation projects and programs implemented as a result of this effort. Among the measures under active discussion are early actions to ensure survival and recovery of endangered species and measures to ensure the continued viability of travel during construction.

Following completion of this EIS process it is anticipated that project level design and environmental review will be started. This will include additional opportunities for site specific evaluation of impacts and mitigation measures and identification of costs.

The following system-level criteria are the recommendations of the Executive Committee (October 2000) based upon input from the Citizen and Steering Committees. These criteria assume that the I-405 Corridor Program will also comply with all Federal, State, and local environmental laws, and Executive Orders. Also included are some clarifications (noted in italics) made by the Project Management Team (PMT).

Improve Mobility

HIGH PRIORITY

- Serve as much of the 2020 peak period travel demand within the corridor as possible
- Improve predictability of travel times for all modes
  Include freight
- Provide flexibility to accommodate post 2020 travel demands
- Reduce travel times for all modes door-to-door compared with current conditions
  Include freight
- Reduce the share of peak period and daily trips by single-occupant vehicles
- Provide effective connections to regional and local transportation systems

OTHER

- Provide reasonable access to various mode choices
  Increase above current levels pedestrian and bike access to transit and vanpools

Reduce Congestion

- Reduce congestion on study area freeways and arterials below current levels
  PMT: Examine peak period and daily conditions

Improve Livability

HIGH PRIORITY

- Demonstrate consistency with adopted regional and local policies to accommodate planned land uses within the study area
  Includes "accessibility," which is a measure of your ability to each and achieve daily activities within or in proximity to your home or work community.
- Minimize and/or mitigate impacts to neighborhoods (displaced households, businesses, parks, and open spaces)

OTHER

- Minimize impacts to visual quality
- Support vigorous regional and state economy
- Minimize negative impacts on minority and/or low-income populations (i.e. environmental justice)
  Noted that this is legal requirement

Improve Safety

- Improve the safety for all modes above current levels
  Considered to be a requirement of federal and state agencies

Environmentally Responsive

Most of the environmental criteria were considered important to meet all federal and state requirements.

HIGH PRIORITY

- Minimize impacts to water quantity and quality
- Minimize impacts to environmentally sensitive areas (wetlands, riparian zones, aquifer recharge areas, critical habitat)
- Minimize impacts to air quality
- Minimize noise impacts

OTHER

- Minimize indirect impacts (adverse effects from displaced and/or unplanned growth and development)

Solutions can be Implemented

HIGH PRIORITY

- Public support is evident
- Maximize benefits to cost
- Total capital and operating costs are within a reasonable range of funding during the next twenty (20) years

OTHER

- Minimize cost to users of the transportation system
- Minimize construction impacts

ELEMENT 1

TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM Package Core Assumptions

- Existing TDM programs will continue (public & private sector)
- Existing public TDM programs will be expanded
- trip reduction targets will be implemented to supported by new interlocal or sub-regional agreements
- Strategies are flexible, monitored and adjusted as needed over time (includes tracking trends for Internet, e-commerce)
- Funding is provided for demonstration projects, plus some ongoing funding for new TDM strategies found effective

Focus of TDM Package

SOV and other trip reduction through the use of:

- Incentives
- Increasing access to alternative modes
- Public information, education and promotion
- Land use strategies

Strategies in the TDM Package

VANPOOLING

Maximize vanpooling in the corridor.
(Minimum of a five-fold increase)

- Intensive marketing of vanpooling, including start-up subsidies
- Use of new "value-added" incentives (e.g., frequent flyer miles for vanpoolers)
- Creation of a revolving no-interest loan fund for purchasing vans
- 50% fare subsidy
- Provide sufficient infrastructure (e.g., small park & ride lots)
- Owner-operated vanpool promotion

PUBLIC INFORMATION, EDUCATION AND PROMOTION PROGRAMS

- Establish ongoing public education and awareness program specific to the corridor (focus on issues and transportation alternatives)
- Provide traveler information system(s), including interactive ride-match and transit information
- Provide personalized trip planning assistance, including for transit

Employer-Based Programs

INCREASE WORK CHOICES

- Telecommuting, flextime, compressed work schedules, multiple shifts
- Proximate commuting (assigning employees to work sites close to home)
- Incentives to employers to offer work choices (e.g., tax credits)
- For current commuter trip reduction program - new incentives and resources to help CTR-affected employers obtain CTR goals (e.g., grants, tax credits, staff support)
- Expanded CTR-like program aimed at smaller employers plus those larger ones not affected by CTR laws (non-regulatory, voluntary based)
- Support development and core operations of transportation management associations (TMA)
- Parking cash-out program incentives and financing

Land Use as TDM

Compact, mixed-use, non-motorized and transit friendly (re)development in target areas (urban centers, suburban clusters, key arterials, transit station areas, transit centers, park-and-ride lots)

- Transit-oriented development (TOD)
- Code changes, streamlining processes, local connectivity retrofitting projects to support (re)development
- Programs (code assistance, design review support) to help jurisdictions and developers implement compact (re)development
- New parking management programs

Other Miscellaneous TDM Programs

Innovative transit and vanpool fare media, incentives, demonstrations, matching funds, etc. [e.g., area-wide "Smart Card" (FlexPass) programs for Eastgate, downtown Bellevue, north Renton industrial area, Bothell business parks, Redmond, downtown Kirkland, Tukwila]

- Non-commute trips TDM programs (research and demonstrations)
- Other miscellaneous incentives (local and state tax credit programs, developer incentives)

ELEMENT 1A

EXPANDED TDM PACKAGE

Overview

This major element will include the range of regional pricing actions being evaluated by the PSRC. The potential impacts of the following actions will be examined in the context of the I-405 Corridor:

- Region-wide congestion pricing (RCP);
- Fuel taxes (revenue = RCP);
- Fuel taxes (revenue = 50% RCP);
- Mileage charge (revenue = RCP)
- Parking charges

ELEMENT 2

TRANSIT EXPANSION WITHIN STUDY AREA

No Action: Transit service levels would be increased by 20% compared to the current King County 6-year plan, assumed to be in place by 2007.

Alternatives 1, 2, and 3: Transit service levels would be increased by up to 100% compared to the current King County 6-year plan, assumed to be in place by 2007. Transit service coverage and design would also be revised to more closely match travel patterns within the study area. These revisions could include more center-to-center movements, connections between neighborhoods and centers, and development of an appropriate 'grid' transit system within the study area.

Alternative 4: Transit service levels would be increased by 50% compared to the current King County 6-year plan, assumed to be in place by 2007.

HIGH-CAPACITY TRANSIT

Description

A high-capacity transit (HCT) solution would be designed for the I-405 corridor. The exact technology of this solution would be determined in later studies, but could include busway, light rail, monorail, or similar mode that could operate at speeds of up to 70 mph. The HCT alignment would generally follow the I-405, SR 520 and I-90 freeway corridors in existing freeway, arterial, or railroad right-of-way. The key characteristic of this solution would be that it would have a dedicated alignment, removing it from congestion-induced delays. Bus service would be reconfigured to provide maximum accessibility to the HCT system.

Alternatives 1 and 2 assume a full-scale HCT within the corridor, likely using some form of fixed-guideway rail technology. Alternative 1 also includes a transit variation that would provide for a commuter rail operation along the BNSF from Tukwila north to Kirkland. Alternative 3 assumes a bus rapid transit (BRT) concept, building on the existing freeway HOV system.

High Capacity Transit (Alternatives 1 and 2)

Jurisdiction	*Project ID*	*Projects*
TUKWILA & RENTON	T.HCT-1	HCT- SeaTac to Renton CBD
RENTON	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)
RENTON, NEWCASTLE, BELLEVUE	T.HCT-3HCT-	NE 44th (Port Quendall) to Factoria
BELLEVUE & ISSAQUAH	T.HCT-4	HCT - Factoria to Issaquah
BELLEVUE	T.HCT-5	HCT - Factoria to Downtown Bellevue
BELLEVUE & REDMOND	T.HCT-6	HCT - Bellevue to Redmond
BELLEVUE & KIRKLAND	T.HCT-7	HCT - Bellevue to Totem Lake
KIRK, KING CO. & WOODINVILLE	T.HCT-8	HCT - Totem Lake to Bothell
BOTHELL & SNO CO.	T.HCT-9	HCT - Bothell to Lynnwood

High Capacity Transit Stations (Alternatives 1 and 2)

SEATAC	SeaTac
TUKWILA	Southcenter
TUKWILA & RENTON	Tukwila (Longacres)
RENTON	Downtown Renton
RENTON	North Renton
RENTON	Port Quendall
BELLEVUE	Factoria

(continued)

High Capacity Transit Stations (continued)

BELLEVUE	Bellevue Transit Center
BELLEVUE	Bellevue Library
BELLEVUE & KIRKLAND	SR 520/Northup Way
KIRKLAND	Downtown Kirkland (NE 85th Street)
KIRKLAND	Totem Lake
WOODINVILLE	NE 145th Street
WOODINVILLE	Woodinville
BOTHELL	NE 195th Street
BOTHELL	Canyon Park
SNOHOMISH COUNTY	164th Street SW (Ash Way)
BELLEVUE	Eastgate
BELLEVUE	Lakemont
ISSAQUAH	Issaquah
BELLEVUE	132nd Avenue NE
BELLEVUE	148th Avenue NE
REDMOND	Overlake (NE 40th Street)
REDMOND	Redmond/Town Center
REDMOND	Bear Creek
MERCER ISLAND	Mercer Island

Bus Rapid Transit Stations (Alternative 3)

SEATAC AIRPORT TRANSPORTATION CENTER
TUKWILA (COMMUTER RAIL STATION)
RENTON TRANSIT CENTER
PORT QUENDALL
NEWPORT HILLS
BELLEVUE TRANSIT CENTER
CENTRAL KIRKLAND (NE 85TH ST)
TOTEM LAKE
BOTHELL/UW CAMPUS
CANYON PARK
LYNNWOOD TRANSIT CENTER

ADD ARTERIAL HOV AND TRANSIT PRIORITY

Overview

Create lanes, intersection queue jumps and signals that provide priority to HOVs and transit on major arterials in the study area.

Arterial HOV

Jurisdiction	*Project ID*	*Projects*
BELLEVUE	R.HOV-36	Coal Creek Pkwy I-405 to Forest Drive
BELLEVUE	R.HOV-37	NE 8th Street I-405 to 120th Ave NE
KIRKLAND, REDMOND	R.HOV-38	NE 85th St Kirkland Way to 148th Ave NE
KIRKLAND	R.HOV-39	NE 116th 98th Ave NE to 124th Ave NE
KIRKLAND	R.HOV-40	NE 124th 100th Ave NE to 132 Ave NE
BOTHELL	R.HOV-41	SR 527 From SE 228th St to SR 524
RENTON	R.HOV-43	SR 169 - SR 405 to Riverview Park vicinity -
RENTON -	R.HOV-44	SW 27th St Corridor in Renton Oaksdale Ave to SR 167
REDMOND	R.HOV-47	Avondale Rd from Novelty Hill Road to Avondale Way Construct SB HOV lane
RENTON, KING COUNTY	R.HOV-48	SW 43 St (SR 167 to 140 Ave SE)
RENTON	R.HOV-49	Logan Ave N / N 6 St (S 3 St to Park Dr)
RENTON	R.HOV-51	Park Dr - Sunset Blvd (Garden Ave to Duvall Ave NE)
KENMORE	R.HOV-53	68 Ave NE (Smds Rd to SR 522) - Construct NB HOV lane
REDMOND	R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)
KIRKLAND, BELLEVUE	R.HOV-56	Lake WA Blvd (SR 520 to Yarrow Bay) - SB HOV lane
KIRKLAND	R.HOV-57	NE 68 St/NE 72 Pl (I-405 Vicinity) - Que Bypass
BELLEVUE	R.HOV-60	Bellevue Way - I-90 to South Bellevue Park & Ride

ELEMENT 5

HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS

Overview

Complete the series of ramps connecting arterials and freeways directly to HOV lanes on I-405. This allows carpools, vanpools and buses to use the HOV lanes without weaving across other traffic. HOV direct access ramps have already been designed by Sound Transit in downtown Bellevue and Kirkland, and design studies are starting for HOV ramps in downtown Renton.

HOV Interchange Ramps (Direct Access)

Jurisdiction	*Project ID*	*Projects*
TUKWILA	R.HOV-25	SR 5 I/C @ Tukwila Fwy to Fwy HOV ramps
RENTON	R.HOV-26	SR 167 I/C Fwy to Fwy HOV ramps
BELLEVUE	R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps
BELLEVUE	R.HOV-28	SR 520 Fwy to Fwy HOV ramps
BOTHELL	R.HOV-29	SR 522 Fwy to Fwy HOV ramps
SNOHOMISH COUNTY	R.HOV-30	SR 5 I/C @ Swamp Creek Fwy HOV ramps
KIRKLAND	R.HOV-61	NE 85th
ST	R.HOV-101	I-405 @ Lind - HOV Direct Access (could be at SR 167
NEWCASTLE	R.HOV-65	112th St SE (In-Line Station)
		Committed HOV Projects
BOTHELL	R.HOV-62	UW Bothell Campus HOV Access (near 195th)*
BOTHELL	New	SR 527 HOV Direct Access (expansion of committed project R. HOV-63 flyer stop*
TUKWILA	New	SR 181-HOV Direct Access to Commuter Rail station *

** Added by jurisdictions as part of the development of the Preliminary Preferred Alternative. Projects not costed or analyzed in DEIS.*

ADD PARK & RIDE CAPACITY TO MEET DEMAND

Overview

Provides additional park-and-ride capacity at existing locations and creates selected new lots based on forecasted transit and carpool demand. The locations initially identified for expansion are listed below. These locations will be refined during the project-level evaluation process.

Park and Rides

Jurisdiction	*Project ID*	*Projects*
RENTON	T.PR-3	Renton East Highlands new Park and Ride
TUKWILA & RENTON	T.PR-6	Tukwila Commuter Rail (Longacres)
KING COUNTY	T.PR-5	140th Ave SE and Petrovitsky Rd Vicinity
KING COUNTY	T.PR-8	SR 169 and 140th Wy SE
KING COUNTY	T.PR-9	Petrovitsky Rd and 157th Ave SE
KING COUNTY	T.PR-10	140th Ave SE and SE 192nd
KING COUNTY	T.PR-11	SR 515 and SE 208th
KENT & RENTON	T.PR-12	SR 167 and SW 43rd
KENT & RENTON	T.PR-13	SR 167 and 84th Ave
REDMOND	T.PR-18	SR 202 @ NE 100th
BELLEVUE & KIRKLAND	T.PR-20	South Kirkland
REDMOND	T.PR-21	Overlake
BELLEVUE	T.PR-22	South Bellevue
BELLEVUE	T.PR-23	Newport (112th Ave. SE)
KING COUNTY	T.PR-24	NE 160th/Brickyard Rd
BOTHELL	T.PR-25	Canyon Park (I-405 & SR 527)
TUKWILA	T.PR-30	Tukwila
KIRKLAND	T.PR-31	Houghton
KIRKLAND	T.PR-32	Kingsgate
MEDINA	T.PR-33	Evergreen Point
BELLEVUE	T.PR-34	Wilburton
KING COUNTY	T.PR-35	Lakemont
REDMOND	T.PR-36	Redmond
REDMOND	T.PR-37	Bear Creek
BOTHELL	T.PR-38	Bothell
KENMORE	T.PR-39	Northshore
KENMORE	T.PR-40	Kenmore
WOODINVILLE	T.PR-41	Woodinville
MERCER ISLAND	T.PR-42	Mercer Island
BELLEVUE	T.PR-43	Eastgate

ELEMENT 7

ADD TRANSIT CENTER CAPACITY TO MEET DEMAND

Overview

Expand existing transit centers and create new transit centers to accommodate increased transit service. The specific locations for expansion and new centers will be identified during the project-level evaluation process. Alternatives 1, 2, and 3 will require transit center capacity to accommodate a significant increase in transit service, at designated HCT stations, and at feeder bus connections. A partial listing is below.

Transit Center Capacity

Jurisdiction	*Project ID*	*Projects*
RENTON	T.TC-6	Downtown Renton
BELLEVUE	T.TC-8	Downtown Bellevue
REDMOND	T.TC-9	Overlake
REDMOND	T.TC-10	Redmond/Town Center
KIRKLAND	T.TC-12	Downtown Kirkland
KIRKLAND	T.TC-14	Totem Lake
WOODINVILLE	New	Downtown Woodinville *
BOTHELL	New	Canyon Park *
NEWCASTLE	New	Downtown Newcastle *

** Added by jurisdictions as part of the development of the Preliminary Preferred Alternative.*

ELEMENT 8

BASIC I-405 IMPROVEMENTS

Overview

This major element fixes existing bottlenecks and locations with safety deficiencies along I-405.

Basic I-405 Improvement Projects

Jurisdiction	*Project ID*	*Projects*
RENTON	R.BI.1	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167
KIRKLAND	R.BI.2	Continue NB climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th
KIRKLAND	R.BI.3	SB auxiliary Lane NE 124th to NE 85th

BELLEVUE	R.BI.4	I-90 / Coal Creek Interchange
BOTHELL, KING CO, KIRKLAND	R.BI.5	SB SR 522 to 124th continue climbing lane as an auxiliary lane
BOTHELL	R.BI.6	NB auxiliary lane SR 522 to SR 527
RENTON	R.BI.7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th
BELLEVUE	R.BI.8	I-90 to Bellevue SB HOV direct connection to I-90 west
BELLEVUE	R.BI.9	NB auxiliary lane I-90 to NE 8th
BELLEVUE	R.BI.10	Increase SR 405 to Eastbound SR 520 Ramp capacity
RENTON	R.BI.14	NB Auxiliary Lane I-5 to SR 167
VARIOUS	R.FR-24	Improve interchange geometrics at all major truck routes (WB-20 Design Criteria)

ADD 1 GENERAL PURPOSE LANE EACH DIRECTION ON I-405

Overview

Add up to one (1) general purpose lane to I-405 through widening of the existing freeway.

ADD 2 GENERAL PURPOSE LANES EACH DIRECTION ON I-405

Overview

Add up to two (2) general purpose lanes to I-405 through widening of the existing freeway. A design option is to create collector-distributor lanes in selected corridor segments (See Element 12).

ELEMENT 11

ADD TWO EXPRESS LANES EACH DIRECTION ON I-405

Overview

This element consists of a four-lane express facility designed to operate with limited interchanges along the length of I-405. The express lanes would be physically separated from the rest of I-405 through the use of barriers. Certain segments could operate within the median of I-405, while other segments would need to be elevated, in tunnel, or on separate alignments.

The express lanes could operate as a general purpose facility or as a managed facility, such as a 'High Occupancy Toll' (HOT) lane. Certain users could be allowed to use the express lanes for free, while other users could be allowed to 'buy-in' to available capacity. The capacity would be priced depending upon demand. This Element is combined with Element 9 as part of Alternative 4.

Express Lanes — 2 Lanes Each Direction Between Major Interchanges

Jurisdiction	*Project ID*	*Projects*
TUKWILA, RENTON	R.TC-20	Add Express lanes - SR 5 Tukwila to SR 167
RENTON	R.TC-21	Add Express lanes - SR 167 to SR 900 north Renton I/C
RENTON, NEWCASTLE, BELL	R.TC-22	Add Express lanes -SR 900 North Renton I/C to SR 90
BELLEVUE	R.TC-23	Add Express lanes - SR 90 to SR 520
BELLEVUE, KIRKLAND	R.TC-24	Add Express lanes - SR 520 to NE 70th
KIRKLAND	R.TC-25	Add Express lanes - NE 70th to NE 124th
KIRKLAND, KING CO., BOTHELL	R.TC-26	Add Express lanes - NE 124th to SR 522
BOTHELL	R.TC-27	Add Express lanes - SR 522 to SR 527
BOTHELL & SNOHOMISH CO.	R.TC-29	SR 527 to vicinity of Damson Rd
RENTON	R.TC-28	Add Express lanes- on SR 167 north of 180th up to I-405

Express Lanes -Access Locations

Jurisdiction	*Project ID*	*Projects*
SNOHOMISH CO. -	R.TC-30	Northern end to Express lanes between SR 527 and I-5
KING CO./KIRKLAND	R.TC-31	Slip Ramp- South of NE 160th Street
KIRKLAND	R.TC-32	Slip Ramp- South of NE 70th Street
BELLEVUE, NEWCASTLE	R.TC-33	Slip Ramp- South of Coal Creek Pkwy
RENTON	R.TC-34	Interchange access location- SR 167

ELEMENT 12

PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405

Overview

Collector- Distributor lanes provide more time for traffic to safely enter or exit from roadway by providing lanes removed from general travel. This is being considered as a design option to handle the addition of one or two general purpose lanes in each direction along I-405 in certain sections.

ELEMENT 13

WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT (STUDY AREA BOUNDARY)

Overview

SR 167 would be widened by one lane in each direction to accommodate additional demands due to growing demands and the effects of improvements at the I-405/SR 167 interchange. The widening is assumed to extend at least to the study area boundary in Kent. Alternative 3 will consider the potential to add a total of two lanes in each direction to SR 167 within 1 mile of I-405, due to the substantial capacity additions assumed for I-405. This element does not presume that SR 167 would be redesignated as I-405, although each of these improvements would be compatible with such a redesignation if it occurs.

ELEMENT 14

SR 167 / I-405 INTERCHANGE IMPROVEMENTS

Overview

The SR 167/I-405 interchange would be completely reconstructed as a directional interchange with flyover ramps (rather than cloverleafs) connecting the major traffic movements between I-405 and SR 167. Included in the redesign will be the HOV freeway-to-freeway ramps listed in Element 5. The interchange redesign is also tied to improvements onSR 167, described in Element 13.

ELEMENT 15

IMPROVE CONNECTING FREEWAY CAPACITY TO I-405

Overview

Enhance the capacity of connecting freeways by one lane in each direction (for a distance of approximately 1/2 to 1 mile on both sides of I-405) to avoid bottlenecks at the connections to I-405.

CONNECTING FREEWAY CAPACITY (ONE LANE, EACH DIRECTION)

Jurisdiction	*Project ID*	*Projects*
TUKWILA	R.CF.1	SR 518 I-405 to SR 99/ Airport Access
BELLEVUE	R.CF.3	I-90 South Bellevue to Eastgate
BELLEVUE	R.CF.4	SR 520 Bellevue Way to 148th Ave NE
BOTHELL, WOODINVILLE	R.CF.5	SR 522 Bothell to NE 195th
SNOHOMISH CO, LYNNWOOD	R.CF.6	SR 525 I-405 to SR 99
RENTON, KENT	R.CF.8	SR 167 I-405 to Study Area Boundary
TUKWILA	R.CF.9	I-5 at Tukwila
LYNNWOOD	R.CF.10	I-5 at Swamp Creek - 196th to 164th

IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS

Overview

This major element involves the implementation of several arterial improvements called for in local agency plans and the Eastside Transportation Program (ETP). The ETP has been an ongoing process by regional, county and local governments to coordinate transportation planning and funding in East King County. Many of the ETP projects have already been examined in detail by the agencies involved and have been determined to be effective in addressing a variety of transportation issues. Committed projects are included in the No Action Alternative.

Eastside Transportation Projects — Planned Projects

Jurisdiction	*ETP #*	*Projects*
BELLEVUE	R.PA-2	148 Ave SE (SE 24 St to SE 28 St) New SB lane from SE 24 St to the WB I-90 on-ramp (ETP 203)
BOTHELL	R.PA-3	SR 522 Multimodal Corridor Project– Widen SR-522 mostly within existing ROW to provide transit lanes, safety improve ments, consolidated drive ways & left turn lanes; and sidewalks. (ETP R-107)
BOTHELL	R.PA-4	SR 524 (SR 527 to Bothell City Limit)– Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)
KCDOT	R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)– Widen to 6 lanes + bike facilities, Transit/HOV preferential treat ment, turn channels. (ETP R-46)
KCDOT	R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)– Widen to 4/5 lanes including bike & eques trian facilities (ETP 164)
KCDOT	R.PA-10	NE 132 St Extension (132 Ave NE to Willows Rd Ext.)–- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)

Eastside Transportation Projects — Planned Projects
(continued)

Jurisdiction	*ETP #*	*Projects*
KENMORE/KCDOT	R.PA-11	68 Ave NE (Simonds Rd to SR 522)– Construct NB HOV lane total of 5/6 lanes (ETP 22)
KIRKLAND	R.PA-12	124 Ave NE (NE 85 St to Slater Rd NE)–- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with ped/bike facilities (ETP R-23)
KIRKLAND	R.PA-13	NE 132 St (100 Ave NE to 116 Way NE)– Widen to 3 lanes + CGS, Bike lane (ETP R-124)
KIRKLAND	R.PA-14	NE 100 St (117 Ave NE to Slater Ave) – Construct bike/ pedestrian/emergency Vehicle overpass across I-405 (ETP 309)
NEWCASTLE	R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)– Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)
REDMOND	R.PA-16	Redmond 148th Ave NE Corridor - 3 projects– Turn lane and channelization improve ments along corridor - BROTS; (ETP R-112)
REDMOND	R.PA-17	Bear Creek Pkwy– Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ ped and CSG; widen Bear Creek Pkwy (ETP R-110)
REDMOND	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)– Widen to 4/5 lanes with bike facilities (ETP R-27)
RENTON	R.PA-19	Duvall Ave NE (NE 4 St to NE 25 Court -City Limits)– Widen to 5 lanes + CGS, bikeway (ETP R-31)
RENTON	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)

RENTON	R.PA-21	Rainier Ave / Grady Way (intersection)– Grade separation (ETP R-33)
RENTON	R.PA-22	SW Grady Way (SR 167 to SR 515)– Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)
RENTON	R.PA-23	SR 167 at East Valley Road– New southbound off-ramp and signalization at East Valley Road (ETP 255)
RENTON/ KCDOT	R.PA-24	Soos Creek Regional Links – Placeholder for Trans-Valley Study (ETP R-115)
WOODINVILLE	R.PA-25	SR 522 Interchange Package(SR 522/SR 202 & SR 522/195th St))– Access improvements and new free way ramps (ETP R-53) (See R.AC-30)
WOODINVILLE	R.PA-26	SR 202 Corridor Package (SR 202/148th Ave & SR 202/ 127th Place)– Intersection improvements (ETP R-54)
WSDOT	R.PA-27	SR 520/SR 202 Interchange– Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)
WSDOT	R.PA-28	SR 202 / 140 Place NE (NE 124 St to NE 175 St)– Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)

(continued)

ELEMENT 17

EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS

Overview

This element expands arterial capacity to provide connected north-south travel. This element would facilitate vehicular movement without requiring as many trips along I-405. Each of the projects below are included in Alternative 4. Those marked with an * are included in Alternative 3.

North-South Arterial Projects

Jurisdiction	*ETP #*	*Projects*
KING COUNTY, RENTON	R.AC-3	138th Ave SE - Construct road way link to 4/5 lanes- SR 169 to NE 4th St *
REDMOND	R.AC-15	Willows Rd- NE 90th St to NE 124th St- Add 1 lane each direction
KING CO., WOODINVILLE	R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes *
WOODINVILLE	R.AC-17	SR 202- NE 145th St to SR 522- widen to 5 lanes *
REDMOND, KING COUNTY, WOODINVILLE	R.AC-18	SR 202 - NE 90th to NE 145th
BOTHELL, SNOHOMISH CO., MILL CREEK	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction
BOTHELL, WOODINVILLE	R.AC-30	SR 202 connection across SR 522 to 120th *
TUKWILA	R.AC-35	SR 181- S 180th to S 200th
TUKWILA	R.AC-36	SR 181- 144th to Strander Blvd.
TUKWILA	R.AC-37	Southcenter Blvd - Tukwila Pky to Strander Blvd

UPGRADE ARTERIAL CONNECTIONS TO I-405

Overview

This element provides for upgrading arterial connections to I-405. These projects are intended to improve operations at on- and off-ramps as well as on the arterials themselves. An additional lane in each direction was assumed for these arterials, although further analysis may show that similar benefits could be achieved through selected intersection improvements in some cases.

Arterial Interchange Improvements

Jurisdiction	*Project ID*	*Projects*
TUKWILA	R.IC-3	SR 181 West Valley Highway/ Interurban
RENTON	R.IC-4	SR 169 Maple Valley Hwy (SR 900 to NE 5th)
BELLEVUE	R.IC-6	Coal Creek Pkwy I-405 to Factoria Blvd.
KIRKLAND, REDMOND	R.IC-8	NE 85th St-Kirkland Way to 124th Ave NE
KIRKLAND	R.IC-9	NE 116th- 114th Ave NE to 124th Ave NE
KIRKLAND	R.IC-10	NE 124th- 113th Ave NE to 124th Ave NE
KIRKLAND	R.IC-26	NE 132nd - 113th to 124th Ave NE
BOTHELL	R.IC-11	SR 527-228th to SR 524
KIRKLAND, KING COUNTY	R.IC-14	New half diamond interchange to/from north at NE 132nd St
BOTHELL	R.IC-21	New SR 405 Interchange at 240th Street SE (Bothell)
BOTHELL	R.IC-24	NE 160th St-112th Ave to Juanita/Woodinville Way

ELEMENT 19

CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS

Overview

Non-motorized improvements throughout the corridor provide needed connections between modes (e.g. pedestrian overpasses from park and rides to freeway bus stops) and allow for commutes or trips to be made by walking or biking. Alternative 4 excludes all of the 'long-distance' trails (identified below under the heading Pedestrian/Bicycle Connections) from this element. These improvements need further refinement in the context of other major elements in the alternatives.

Pedestrian/Bicycle (I-405 Crossings)

Jurisdiction	*Project ID*	*Projects*
BELLEVUE	NM. CR-1	Lk Washington Blvd/112th Ave SE - crossing I-405 from 106th Ave SE to 112th Place SE — Add sidewalks
BOTHELL	NM. CR-2	Fitzgerald Rd/27th Ave— crossing I-405 from 228th St. SE to 240th St. SE — Add ped/bike facility
KING COUNTY	NM. CR-3	SR-524 (Filbert Road) - cross ing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder
KING COUNTY	NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd Add sidewalk/paved shoulder
RENTON	NM. CR-5	NE Park Drive — crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder
RENTON	NM. CR-6	Jackson SW/Longacres Dr SW — crossing I-405 from S Lon gacres Way to Monster Rd SW Add sidewalk/paved shoulder
BOTHELL	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St — Add ped/bike over-crossing of I-405

BOTHELL	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility

Pedestrian/Bicycle Connections

Jurisdiction	*Project ID*	*Projects*
BELLEVUE	NM.P&B-4	Lake Washington Blvd - SR 405 to SE 60th - Add ped/bike facilities
BELLEVUE, KIRKLAND	NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add ped/bike facility
BELL, NEWCASTLE, RENTON	NM.P&B-6	Lake Washington Blvd/112th - SE 60th to May Creek I/C - Add ped/bike facility
BOTHELL	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.
RENTON	NM. P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave Add ped/bike facilities (ETP NM-17)
RENTON	NM. P&B-15	Cedar River Trail/Lk Washing ton Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities (ETP NM-15)
RENTON	NM. P&B-16	Cedar-Duwamish Trail Connec tion - I-405 to Interurban Ave. S - Add ped/bike facilities
RENTON	NM. P&B-17	I-405/SR-167 trail connection - Lind Ave SE to Talbot Rd S Add trail connection
RENTON, TUKWILA	NM. P&B-18	I-405/I-5 - via or around I-405/I-5 interchange — Add ped/bike facilities
TUKWILA	NM. P&B-19	SR-181/W Valley Hwy - cross ing I-405 from Strander Blvd to Fort Dent Way — Add bike lanes

ELEMENT 20

I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM ENHANCEMENTS

Overview

This major element provides ITS enhancements to facilitate more reliable traffic flow.

I-405 Corridor ITS Enhancements

Jurisdiction	*Project ID*	*Projects*
VARIOUS	ITS.1	Add Camera Coverage to decrease TMC blind spots
VARIOUS	ITS.2	Complete Ramp Metering
VARIOUS	ITS.4	Dual Lane Ramp Metering
VARIOUS	ITS.5	Increased Incident Response
VARIOUS	ITS.6	Traffic adaptive control on arterials
VARIOUS	ITS.7	TIS before all major decision points
VARIOUS	ITS.8	WSDOT support of in-vehicle traffic information
VARIOUS	ITS.9	Arterial camera coverage

ELEMENT 21

I-405 CORRIDOR FREIGHT ENHANCEMENTS

Overview

This major element focuses on improvements specific to freight movements. Note that freight will benefit as well from general purpose traffic expansion described in other elements.

I-405 Corridor Freight Enhancements

Jurisdiction	*Project ID*	*Projects*
RENTON	R.FR-10	Modify interchange movements for freight - SR 167 (SW Quadrant) - SR 522 (SW and SE Quadrants) - SR 520 (SW Quadrant) - Coal Creek Parkway (NB on/off ramps) - SR 169

		- SR 181 (on/off ramps)
VARIOUS	R.FR-11	Improve truck flow with ITS
VARIOUS	R.FR-23	Remote area for overnight freight parking and staging for early morning deliveries
VARIOUS	R.FR-27	Traveler Information System (TIS) on SR 167 for I-405 “options”
VARIOUS	R.FR-28	TIS on I-5 for SR 18/I-90; and 164th to I-405; and South 200th to I-405
VARIOUS	R.FR-29	Centralized fax/radio for real time congestion reporting for dispatchers and truck drivers. Leverage WSDOT video link ages (e.g., a “T-911” number).
VARIOUS	R.FR-30	Hours of operation and service periods optimized-”JIT” rede fined for applicable service sectors (e.g. restaurants)
VARIOUS	R.FR-32	Light cargo delivery using Sound Transit service

** Cost Data in Millions. Year 2000 Dollars*

	Right of Way	*Construction*	*Total*	*Annual M & O*
ALTERNATIVE 0 NO ACTION				
Transportation Demand Management				
Freeway General Purpose	$0	$7	$7	$0
Freeway HOV	$0	$464	$464	$0.2
Arterial General Purpose	$0	$186	$186	$0.2
Arterial HOV				
High Capacity Transit				
Transit Services and Park and Ride	$0	$20	$20	$1.3
Pedestrian and Bicycle				
TOTAL ALTERNATIVE 0	$0	$677	$677	$1.6
ALTERNATIVE 1 HCT/TDM				
Transportation Demand Management	$0	$73	$73	$19
Freeway General Purpose	$97	$672	$769	$0.4
Freeway HOV				
Arterial General Purpose				
Arterial HOV	$123	$94	$217	$0.04
High Capacity Transit	$626	$3,392	$4,018	$97
Transit Services and Park and Ride	$70	$103	$172	$34
Pedestrian and Bicycle	$33	$34	$67	$0
TOTAL ALTERNATIVE 1	**$949**	**$4,368**	**$5,317**	**$150**
ALTERNATIVE 2 MIXED MODE with HCT/TRANSIT EMPHASIS				
Transportation Demand Management	$0	$73	$73	$19
Freeway General Purpose	$325	$2,522	$2,846	$1
Freeway HOV	$42	$759	$801	$0.2
Arterial General Purpose	$131	$339	$470	$0.1
Arterial HOV	$109	$85	$195	$0.04
High Capacity Transit	$626	$3,392	$4,019	$97
Transit Services and Park and Ride	$69	$100	$169	$33
Pedestrian and Bicycle	$33	$34	$67	$0
TOTAL ALTERNATIVE 2	**$1,336**	**$7,303**	**$8,639**	**$151**

	Right of Way	*Construction*	*Total*	*Annual M & O*
ALTERNATIVE 3 MIXED MODE				
Transportation Demand Management	$0	$73	$73	$19
Freeway General Purpose	$401	$4,082	$4,483	$1
Freeway HOV	$47	$950	$997	$0.2
Arterial General Purpose	$278	$445	$723	$0.2
Arterial HOV	$109	$85	$195	$0.04
High Capacity Transit				
Transit Services and Park and Ride	$102	$218	$320	$102
Pedestrian and Bicycle	$33	$34	$67	$0
TOTAL ALTERNATIVE 3	**$970**	**$5,887**	**$6,857**	**$123**
ALTERNATIVE 4 GENERAL CAPACITY				
Transportation Demand Management	$0	$73	$73	$19
Freeway General Purpose	$623	$8,774	$9,398	$2
Freeway HOV	$42	$845	$887	$0.2
Arterial General Purpose	$426	$458	$884	$0.3
Arterial HOV				
High Capacity Transit				
Transit Services and Park and Ride	$21	$62	$83	$38
Pedestrian and Bicycle	$25	$18	$43	$0
TOTAL ALTERNATIVE 4	**$1,137**	**$10,230**	**$11,367**	**$59**

NOTES

FALL 2001 MEETING SCHEDULE

Citizen Committee	Steering Committee	Executive Committee
PREFERRED ALTERNATIVE DEVELOPMENT		
October 23	October 23	October 30
5:30 p.m. - 9:00 p.m.	1:30 p.m. - 4:05 p.m.	9:00 a.m. - 11:30 a.m.
Kirkland City Hall	Bellevue City Hall	Highland Center, Bellevue
Peter Kirk Room	Council Conference Room	
DRAFT EIS PUBLIC COMMENT REVIEW		
October 30	October 30	October 30
11:30 a.m. - 1:30 p.m.	11:30 a.m. - 1:30 p.m.	11:30 a.m. - 1:30 p.m.
Highland Center, Bellevue	Highland Center, Bellevue	Highland Center, Bellevue
PREFERRED ALTERNATIVE RECOMMENDATIONS & CELEBRATION		
November 8	November 8	November 16
5:30 p.m. - 9:00 p.m.	1:30 p.m. - 4:05 p.m.	10:30 a.m. - 2:30 p.m.
Redmond Regional Library	Redmond Regional Library	Kirkland City Hall
Room #1	Room #1	Peter Kirk Room



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I-405 CORRIDOR PROGRAM

March 19, 2002

TO: I-405 Corridor Program Steering Committee
FR: Michael Cummings, WSDOT Project Manager
RE: I-405 Corridor Program Environmental Impact Statement (EIS) Preferred Alternative

Requested Action: Concurrence on I-405 Corridor Program EIS Preferred Alternative

The Washington State Department of Transportation, Federal Highway Administration, Federal Transit Administration, King County and Sound Transit request your agency's concurrence on the Preferred Alternative and Corridor Environmental Program (CEP) for the I-405 Corridor Program. Under the Reinventing NEPA process, written approval of the Preferred Alternative and mitigation concept, the CEP, must be obtained from agencies with jurisdiction.

Enclosed for your information and use are the following:

- ☐ I-405 Corridor Program EIS Concurrence Point 3 Form
- ☐ Attachment A - Preferred Alternative Table and Map
- ☐ Attachment B - I-405 Corridor Environmental Program (CEP)
- ☐ Concurrence Point Background Information

The I-405 Corridor Program preliminary FEIS is enclosed for your information in making a decision on this concurrence.

Agencies with jurisdiction sit on the Steering Committee. At a minimum, the primary resource agencies (Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, the Washington State Department of Ecology, and the Washington State Department of Fish and Wildlife) are required to sign the concurrence agreement. All agencies represented on the Steering Committee are being asked to sign the concurrence form. This is the same process used earlier to gain concurrence on the statements of purpose and need and for the alternatives to be evaluated in the Draft EIS.

In review, the Draft EIS was issued in August 2001. It disclosed analysis of transportation, social, economic and environmental impacts of the proposed alternatives. After a 60-day comment period, the Executive Committee selected a preferred alternative, which is being analyzed in the FEIS. The Executive Committee decision was based on public comments, as well as recommendations from the Steering and Citizen committees. Concurrence of the agencies with jurisdiction on the Preferred Alternative represents a major milestone for this program. Timely completion of this milestone is critical to maintaining the program's schedule.

Thank you for your prompt attention to this request. Please return your completed concurrence form to by **April 5, 2002**. If you have any questions, please call Michael Cummings at 206-464-6223.

I-405 Corridor Program - Concurrence Point #3

Date sent: March 19, 2002

Concurrence Point: **Preferred Alternative and Mitigation Concept (CEP)**

In signing this concurrence agreement, the Agencies with Jurisdiction agree to:
1.) Concur* with the Major Elements of the I-405 Corridor Program Preferred Alternative (Attachment A), and
2.) Mitigation Concept (Corridor Environmental Program – CEP) (Attachment B)

In signing this concurrence agreement, the State and Local Governments and Agencies that provide transportation services agree to:
3.) Pursue in good faith amendments of transportation plans and programs in order to implement the I-405 Corridor Program's Preferred Alternative and Corridor Environmental Program.

Agency:

Signature:

Title:

Date:

Circle one of the below:

Concur **Concur with Comment(s)** **Non-concur**

If the agency has selected Non-concur, they must include an explanation of what should be changed so that the agency could concur. (Describe here or attach.) Please return to: Michael Cummings, WSDOT, 401 Second Avenue South, Suite 300 Seattle, WA 98104-2862, cumminm@wsdot.wa.gov.

*Concurrence means:

- *"Formal written determination by agencies with jurisdiction that the project information is adequate for the current phase of the process."* At this phase, project information includes the Preferred Alternative Description, Corridor Environmental Program, PFEIS and Early Action Environmental Mitigation Decision Making Process.

- *"Concurrence means that the project may proceed to the next phase without modification. Agencies agree not to revisit previous concurrence unless there is substantial new information, or substantial changes have been made to the project, the environment, laws and/or regulations."*

- *"Agencies will have the option to comment on elements of the project at the appropriate points in the process."* (a) Agencies with jurisdiction will participate in additional project level environmental review under NEPA and SEPA and all applicable laws and regulations at a greater level of detail. (b) WSDOT will continue to coordinate with agencies with jurisdiction and others implementing "Early Action" and other project level mitigation measures. (c) Concurrence on the Major Elements of the I-405 Corridor Program Preferred Alternative does not indicate individual project concurrence.

- *"It is not intended that concurrence means that a permit will be issued-just that the project information for the current phase is adequate."* Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and approve or disapprove associated mitigation measures.

(Language in quotations is directly from Re-Invent NEPA definition of "Concurrence.")

I-405 Corridor Program
Background Information

PROJECT BACKGROUND – STATUS TO DATE:

The I-405 Corridor Program is a comprehensive strategy to reduce traffic congestion and improve mobility, safety, and the quality of life for communities and the environment in the I-405 corridor. This is a result of two years of consensus building and extensive public outreach.

The I-405 Corridor Program is a pilot project within the "Reinventing the National Environmental Policy Act (NEPA)" process. Agencies with jurisdiction are asked to sign the Reinventing NEPA Concurrence Point 3.

The Agencies with Jurisdiction have participated on I-405 Corridor Program's Executive and Steering Committee, with the benefit of input from a citizen-based advisory committee, and participated in the development of a Preferred Alternative (PA) through a collaborative decision process. The Agencies with jurisdiction agreed to the first two Concurrence Points (Establishing Project Purpose and Need and defining Alternatives for the DEIS) as well as eight consensus points. Other key-points along the decision-process timeline are as follows:

1. Concurrence Point #1 on alternatives to include in the Draft Environmental Impact Statement (DEIS) was established in September 2000. This established the "purpose and need" for the project.
2. In August 2001 a Draft Environmental Impact Statement was issued which detailed analysis of the transit, roadway, social, economic and environmental impacts of the proposed alternatives. A 60-day public comment period was conducted during which three public hearings were held throughout the I-405 corridor.
3. In October 2001, comments received on the DEIS were shared and discussed with Program committees.
4. On November 8, 2001, the I-405 Corridor Program Steering Committee and Citizens Committee provided their input and recommendations for the PA . These recommendations were sent for consideration to the Executive Committee.
5. On November 16, 2001, with input and recommendations from the Steering and Citizen Committee, the Executive Committee selected Alternative #3 as a preferred alternative (see attachment).
6. The Washington State Legislature has authorized funding for the preferred alternative, subject to a public vote.

PROGRAM ENVIRONMENTAL COVERAGE

Due to the programmatic level of I-405 Corridor Program, design level details are not available at this point in the planning process and therefore further follow-on project level environmental review will occur. Agency concurrence on the Preferred Alternative for this programmatic planning effort does not indicate support for specific project level

- Other Elements: Support the continued evaluation of the managed-lane concept to determine how best to use new capacity and weigh relative benefits and costs.

RENTON

- Transportation Demand Management: Additional funding needed for the strategies in the TDM package.
- Transportation Demand Management: Elements of the TDM package must have public support prior to receiving support from the City of Renton.
- Transit & HOV: 100% increase in transit service is approved as long as local transit needs are met.
- Transit & HOV: The HCT fixed guide-way must be located on the I-405 alignment / corridor prior to receiving support from the City of Renton.
- Transit & HOV: BRT should provide adequate capital improvements to reach transit goals and should not use BNSF right-of-way in Renton.
- Transit & HOV: HOV express on I-405 w/ direct-access should be combined with needed arterial HOV improvements.
- Transit & HOV: Support added park & ride capacity to match demand as long as it is primarily located within the city limits.
- Arterial: Additional funding contribution by I-405 Corridor Program to assume the completion of planned arterial improvements. Minimize additional ROW needs.
- Freeway: Freeway improvement elements should minimize right-of-way needs and impacts on sensitive areas. Elements 8 & 9 must be included in the addition of 2 GP lanes.
- Freeway: GP and HOV improvements including grade separation S/B incorporated into the final configuration of SR-167 / I-405 interchange project.
- Non-Motorized: Include new projects in Renton's Non-motorized plan S/B included in corridor bicycle and pedestrian elements.
- Other Elements: Managed Lanes: this concept must have public support first prior to receiving support from City of Renton.
- Other Elements: Third-lane south of I-90 / Lane Balance: the additional ROW needs could impact neighborhoods – Renton City Council has endorsed Alternative #3 – 2 GP Lanes.

Puget Sound Clean Air Agency (PSCAPA)

- Transit & HOV: Further study is needed for HCT / BRT fixed-guide-ways and the impacts must be identified by component. The selected alternative(s) must be adaptable to changing technology. The selected design should not be mixed within the general traffic congestion.
- Transit & HOV: The addition of park-and-ride capacity should emphasize park and walk lots.
- Freeway: The addition of freeway general-purpose capacity should emphasize the smallest level of capacity expansion possible.
- Arterial: We would support north-south arterial capacity expansion provided further study demonstrates how this element could support expansion transit.

Puget Sound Regional Council

- BRT – High Capacity Transit: Ensure that the footprint within current right-of-way does not preclude future additional technologies, e.g., ability to accommodate elevated systems.
- High Capacity Transit: Protect ROW footprint to accommodate possible future HCT. Also, verify that excess access points do not aggravate current and future congestion.
- Arterial Connections: Coordinate with possible north-south container train traffic on BNSF line during peak periods.

Attachments referenced in the Concurrence on I-405 corridor Program EIS Preferred Alternative Memorandum dated March 19, 2002 can be located at the following locations within the EIS document:

Attachment A – Preferred Alternative Map: **Chapter 2**

Attachment A – Preferred Alternative Table: **Appendix B**

Attachment B – I-405 Corridor Environmental Program (CEP): **Appendix J**

Attachment A

PREFERRED ALTERNATIVE GENERAL DESCRIPTION

This attachment generally describes the Preferred Alternative (PA) and includes:

- Highlights of the PA
- Table listing key elements
- Description of the Transportation Demand Management (TDM) program
- Map showing the location of key projects
- Table listing key projects

HIGHLIGHTS OF THE PREFERRED ALTERNATIVE

Highlights of the Preferred Alternative include:

- TDM package, including consideration of congestion pricing strategies as part of a regional strategy
- Non-motorized elements and corridor freight enhancements
- Bus Rapid Transit (BRT) in the I-405 corridor. Also expanded transit service (approximately 75% more than 2007 conditions); HOV direct access, arterial bus priority treatments, transit stations and Park-and-Ride facilities in the corridor
- Explore fixed guideway high capacity transit (HCT) options for central core (SR 520/I-90 Corridor) travel
- Add up to 2 mainline general-purpose lanes each direction on I-405 with appropriate collector-distributor lanes, and connecting freeway and arterial capacity
- SR 167/I-405 interchange improvements; add up to 2 mainline general purpose lanes on SR 167
- North/south arterial expansion
- Explore managed lane options for up to two lanes each direction on I-405.

Table 1 identifies the key elements of the Preferred Alternative.

TABLE 1. KEY ELEMENTS OF THE PREFERRED ALTERNATIVE

#	MAJOR ELEMENTS	Preferred Alternative	Comments on Preferred Alternative
	DEMAND MANAGEMENT		
1	TDM Package	X	
1A	Expanded TDM Package (Regional Pricing through PSRC)	X	Must be part of adopted regional pricing policy
	TRANSIT and HOV		
2	Transit Expansion Within Study Area	+75%	Service levels adjusted based on demand
3	High Capacity Transit (HCT)- Fixed Guideway	Central Core	East-west emphasis in central core; technology to be determined later.
3	High Capacity Transit (HCT)- Bus Rapid Transit	X	Characteristics include faster and more reliable serve, distinctive vehicles with level boarding, off-vehicle fare collection, and high-end customer information service.
4	Arterial HOV Priority	X	
5	HOV Express on I-405 with Direct Access Ramps	X	
6	Add Park-and-Ride capacity to match demand	X	
7	Add Transit Center capacity to match demand	X	
	FREEWAY		
8	Basic I-405 Improvements	X Limited	Committed Projects plus hill-climbing lanes
9	Add 1 general purpose lane each direction on I-405	NO	
10	Add 2 general purpose lanes each direction on I-405	X	

#	MAJOR ELEMENTS	Preferred Alternative	Comments on Preferred Alternative
11	Add 2 express lanes each direction on I-405	NO	
12	Provide collector-distributor lanes on I-405 where needed	X	
13	Widen SR 167 by 1 lane each direction to Kent (Study area boundary)	X Widen up to 2 lanes south to 180th	Section south of 180th subject to future study
14	SR 167 / I-405 Interchange Improvements	X	
15	Improve connecting freeway capacity to I-405	X	
	ARTERIAL		
16	Implement planned arterial improvements	X	
17	Expand capacity on north-south arterials	X	Include arterial list from Alternative 4
18	Upgrade connecting arterial connections to I-405	X	
	NON-MOTORIZED		
19	Corridor pedestrian and bicycle improvements	X	
	INTELLIGENT TRANSPORTATION SYSTEMS		
20	Corridor Intelligent Transportation System Improvements	X	
	FREIGHT		
21	Corridor freight enhancements	X	
	PRESERVE BNSF		
	Preserve use of BNSF for future transportation use		Sent letter of support for preservation to appropriate agencies

#	MAJOR ELEMENTS	Preferred Alternative	Comments on Preferred Alternative
	MANAGED LANES		
	Manage up to 2 lanes each direction	X	The Preferred Alternative includes an additional four-foot buffer in each direction along I-405 so that expanded managed lane options in the corridor would not be precluded. Subject to further detailed study
	Utilize tolls as a management tool		Consider as part of regional pricing strategy (Element 1A)

Contact: John Shadoff, WSDOT, 206 464-5428, shadofj@wsdot.wa.gov

Core Assumptions

- New corridor-wide Single Occupancy Vehicle (SOV) reduction goals will be established, supported and implemented through a formal interlocal agreement
- A central steering committee will provide ongoing oversight & accountability over the 20-year project period

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Program Elements --

Vanpooling

- Intensive New Marketing
- 1700 New Vans
- 25% Vanpool Fare Subsidy
- Owner-Operator Promotional Materials

Public Information and Education

- Public Information & Education Campaign
- Traveler Information Services
- Personal Trip Planning Assistance

Land Use as TDM

- Technical Support Programs
- Developer/Business Incentives
- Local Connectivity Projects

Employer TDM Programs

- Programs to Increase Work Options
- Increased Commute Trip Reduction (CTR) Incentives and Resources
- Transportation Management Associations
- Parking Cashout

Other TDM Programs

- Innovative Fare Media
- Non-Commute Trip TDM
- Incentives
- New Park & Ride Leased Lots

Attachment B

DRAFT
3/6/02

I-405 Corridor Environmental Program (CEP)

The Corridor Environmental Program for the I-405 Corridor Program is intended to meet the mitigation concept requirement of the Reinventing NEPA process.

PURPOSE OF THE CORRIDOR ENVIRONMENTAL PROGRAM

The CEP defines an environmental program that complements and becomes an integral part of the I-405 Corridor transportation program. The I-405 Corridor Program is one of the largest transportation projects in Washington state history. The program offers an unprecedented opportunity to address transportation needs and, at the same time, address impacts to the natural and built environments in a comprehensive manner within the corridor. The primary focus of the CEP is to clearly present the goals and objectives of the environmental program and to outline strategies for addressing impacts of the corridor program to the natural and built environment.

The CEP conforms to the Purpose and Need for the I-405 Corridor Program, by: 1) maintaining or enhancing community livability within the corridor; and 2) maintaining, protecting or enhancing the integrity of the region's natural environment. To address those elements of the program, the CEP describes mitigation at a level commensurate with the programmatic decision being made now and contains the following:

- Goals and objectives for the natural and built environment
- A strategy for mitigating impacts to the natural and built environments through early action and project-level measures

The CEP will be a component of Concurrence Point #3 and provide guidance for development of the environmental portions of the Memorandum Understanding among the project level implementing and regulatory agencies and jurisdictions.

BACKGROUND

Interstate 405 (I-405) is a major transportation corridor serving people and goods moving north and south on the east side of Lake Washington. While originally developed as a bypass route for Seattle, I-405 now serves as the transportation backbone for an area that is home to nearly 20% of the Puget Sound region's population. The I-405 corridor population and employment growth is expected to increase by over 35 percent during the next 20 years. By 2020, an additional 144,000 people are forecasted to be employed within the study area, while the population is expected to reach approximately 765,000, an increase of more than 200,000 people from 1997. This growth is projected to increase in person trips in the corridor by about 56 percent (1995-2020).

Through a three-year process a general consensus emerged around a multi-modal transportation alternative that included road construction, a bus rapid transit system, demand management strategies and related improvements. Over the course of this process, the three committees approved the purpose, goals, and objectives for the I-405 Corridor Program. Members of the these committees resolved that the alternatives selected for I-405 would:

- Improve mobility,
- Reduce congestion,
- Improve livability,
- Be environmentally responsive, and
- Provide solutions that could be implemented

THE CEP GOALS AND OBJECTIVES

The following three goals and associated objectives will guide development of future project level environmental programs and supporting early actions. The first two goals address the natural environment and the third addresses the built environment.

Goals:

1. Integrate transportation and environmental investments in a way that improves critical natural resources and supporting habitat.
2. Use a watershed-based approach to mitigation to ensure transportation related environmental funds are spent on the greatest environmental benefit.
3. Implement the Program in a manner that supports the Growth Management Act goals.

The following objectives are measures aimed at protecting and where possible enhancing the environment as the I-405 Corridor Program is implemented. The objectives are proposed as actions to be undertaken by project implementers that will be taken to address environmental mitigation and enhancement opportunities. The objectives will form the foundation of project decisions and permits as the corridor program is implemented. The objectives are commensurate with the level of detail available at this time and will become more explicit as project implementation moves forward.

Natural Environment Objectives

- Avoid and minimize impacts to fish and wildlife and their habitat to the extent practicable and compensate for unavoidable impacts.

- Maintain, protect, and enhance the functions of fish and wildlife habitat, wetlands, and other waters of the state and to seek a net gain in those functions through preservation, restoration, creation, and enhancement. .

- Adaptively manage mitigation sites. Design, implement, monitor, evaluate and adjust mitigation sites to ensure that defined standards are met.

- Establish and integrate into an agreement among project proponents and local, state and federal regulatory agencies an innovative mitigation strategy and schedule to protect environmental resources while ensuring transportation project delivery.

- Maintain, protect, and improve air quality in the corridor and the region during construction and operation through:
    - Innovative project design
    - Mitigation of construction related emissions, and
    - Measures such as congestion reduction, transportation demand management, and fuel and technology improvements that reduce transportation related emissions of ozone precursors, particulate matter (PM10 &PM 2.5), toxic air pollutants, & carbon monoxide.

- Provide treatment for water quality and quantity for new impervious areas and as appropriate retrofit existing storm water outfalls, and participate in watershed-based storm water mitigation projects that would result in net improvements in the water quality and hydrology baselines in the affected watersheds.

- Protect sole source aquifers and minimize impacts to ground water quality and quantity.

- Result in no net loss of wetland area and function or floodplain area and function.

- Design and implement appropriate mitigation projects in advance of transportation project construction activities.

Built Environment Objectives

- Avoid or minimize right of way and noise impacts to residences and businesses by incorporating appropriate design/technologies.

- Use advance mitigation to reduce the impacts of construction activities on mobility and the communities.

- Use adaptive management techniques to monitor and adjust transportation improvements and schedules to achieve maximum benefits at lowest environmental and social costs.

- Locate and design transportation facilities to promote compact development and provide flexibility to serve future inter-modal needs.

- Develop a project implementation program that will include as early actions:
    - Transportation Demand Management
    - Transit investments necessary to provide alternative means and routes for travel in the impacted sections
    - Environmental mitigation
    - Targeted arterial investments

THE CEP MITIGATION STRATEGY

Early-Action

Based upon the CEP goals and objectives the program will identify early actions that the implementing agencies can take to address project impacts to both the Natural and Built Environments. These early action strategies will be developed and completed prior to permits being issued for construction.

Natural Environment

The CEP includes a process by which implementing and regulatory agencies will jointly make decisions on early action mitigation for impacts to water resources, wetlands, floodplains, protected aquatic and upland species and habitat. (Proposed Early Action Environmental Impact Mitigation Decision Making Process, WSDOT, 2002.)

The process involves two general phases:

- Prior to transportation project permitting, develop and implement an early-action mitigation program to compensate for environmental functions that are likely to be impacted by the program
- During transportation project permitting and construction, identify avoidance, minimization, on-site/in-kind, and off site compensatory mitigation measures best suited to address project-level impacts.

This evaluation will include avoidance, minimization and on and off- site compensatory mitigation opportunities. The off-site mitigation opportunities will rely heavily, but not exclusively, on information provided in the Water Resource Inventory Area (WRIA) 8 and 9 programs and approved habitat conservation plans (HCP). Those agencies with jurisdiction/authority over the impacted resource will help define the best compensation opportunities. The area in the vicinity of the I-405 and SR 167 interchange may be used as an example to evaluate this approach.

Should this strategy prove successful it could become a template for the entire I-405 corridor and other urban projects.

Built Environment

The I-405 Corridor Program's impacts to the built environment include right of way impacts, noise, mobility (during construction) impacts and social impacts. Avoidance and minimization of these impacts will be addressed prior to individual project construction. An implementation program is being developed and will include early development of selected Transportation Demand Management (TDM), transit investments necessary to provide alternative means and routes for travel in the impacted sections and targeted arterial investments. A parallel effort is also being done to look at creative ways to reduce noise impacts of freeway facilities.

Project Level

The level of detail necessary to make project level impact mitigation decisions was not provided in the programmatic I-405 Corridor Program Environmental Impact Statement. However, project- level mitigation aimed at construction and operational impacts will proceed following Concurrence Point #3.

The CEP will guide project level mitigation decisions. For example authorities responsible for project design and environmental mitigation will ensure that a

transportation project does not result in a net loss to wetland area or function. Furthermore, the Early Action Environmental Impact Mitigation Decision Making Process can be used during the project permitting phase as it identifies a process for specifying how impacts can be avoided, minimized or compensated for through on-site, in-kind compensatory mitigation or early-action mitigation credits.

Included by reference:
Proposed Early Action Environmental Impact Mitigation Decision Making Process, WSDOT, 2002

I-405 Corridor Program
Background Information

March 6, 2002

PROJECT BACKGROUND – STATUS TO DATE:

The I-405 Corridor Program is a comprehensive strategy to reduce traffic congestion and improve mobility, safety, and the quality of life for communities and the environment in the I-405 corridor. This is a result of two years of consensus building and extensive public outreach.

The I-405 Corridor Program is a pilot project within the "Reinventing the National Environmental Policy Act (NEPA)" process. Agencies with jurisdiction are asked to sign the Reinventing NEPA Concurrence Point 3.

The Agencies with Jurisdiction have participated on I-405 Corridor Program's Executive and Steering Committee, with the benefit of input from a citizen-based advisory committee, and participated in the development of a Preferred Alternative (PA) through a collaborative decision process. The Agencies with jurisdiction agreed to the first two Concurrence Points (Establishing Project Purpose and Need and defining Alternatives for the DEIS) as well as eight consensus points. Other key-points along the decision-process timeline are as follows:

1. Concurrence Point #1 on alternatives to include in the Draft Environmental Impact Statement (DEIS) was established in September 2000. This established the "purpose and need" for the project.
2. In August 2001 a Draft Environmental Impact Statement was issued which detailed analysis of the transit, roadway, social, economic and environmental impacts of the proposed alternatives. A 60-day public comment period was conducted during which three public hearings were held throughout the I-405 corridor.
3. In October 2001, comments received on the DEIS were shared and discussed with Program committees.
4. On November 8, 2001, the I-405 Corridor Program Steering Committee and Citizens Committee provided their input and recommendations for the PA . These recommendations were sent for consideration to the Executive Committee.
5. On November 16, 2001, with input and recommendations from the Steering and Citizen Committee, the Executive Committee selected Alternative #3 as a preferred alternative (see attachment).
6. The Washington State Legislature has authorized funding for the preferred alternative, subject to a public vote.

PROGRAM ENVIRONMENTAL COVERAGE

Due to the programmatic level of I-405 Corridor Program, design level details are not available at this point in the planning process and therefore further follow-on project level environmental review will occur. Agency concurrence on the Preferred Alternative for this programmatic planning effort does not indicate support for specific project level design elements or that conditions for a permit have been met. Agencies with

jurisdiction will participate in additional project level environmental review, under the National Environmental Policy Act where appropriate.

Concurrence denotes that the project information for the current Program phase is adequate to move into design level environmental review. WSDOT will continue to coordinate with agencies with jurisdiction and others developing and implementing Early Action and other project level mitigation measures. Agencies with jurisdiction will retain full permitting authority and the ability to condition or deny future project permits and disapprove associated mitigation measures.

Finally, it should be recognized that the Preliminary Final EIS (PFEIS) and proposed response to comments is being provided with the request for concurrence for informational purposes only and concurrence is not being specifically requested on the PFEIS.

Agency Comments on the Preferred Alternative

The following is a summary of the comments received from individual agency staff during the development of the Preferred Alternative. These comments do not represent comments received on the Draft Environmental Impact Statement.

BELLEVUE:

- Transportation Demand Management: TDM Program must be custom tailored to meet unique qualities and needs of each community. Related programs and projects S/B phased-in.
- Transit & HOV: Recommend 100% increase for transit. This should be closely coordinated with the TDM program.
- Arterial HOV Priority: Support the approach for Arterial HOV Priority. However, may wish to modify it as part of the final design and implementation.
- Arterial HOV Priority: The Preferred Alternative must meet the region's future growth needs and those of the transportation system. Particular concern expressed here with regards to I-405 between I-90 interchange and SR-520 interchange.
- Expanded capacity on north-south arterials: This does not include any Bellevue N/S arterials.
- Upgrading connecting arterial capacity connections to I-405: This does include a connection from I-405 to Factoria Blvd./ Coal Creek Parkway.
- Other Elements: Suggest that the HCT Study – Fixed Guide-way in central core will need further study. City reserves the right to later choose to support or oppose this based upon additional analyses.
- Other Elements: Support the option of using the BNSF ROW for HCT purposes should the Bus-Rapid Transit be compromised over time.
- Other Elements: Suggest that the need for a third lane south of I-90 be studied further as part of subsequent EIS endeavors and lane-balance analysis.

- Other Elements: Support the continued evaluation of the managed-lane concept to determine how best to use new capacity and weigh relative benefits and costs.

RENTON

- Transportation Demand Management: Additional funding needed for the strategies in the TDM package.
- Transportation Demand Management: Elements of the TDM package must have public support prior to receiving support from the City of Renton.
- Transit & HOV: 100% increase in transit service is approved as long as local transit needs are met.
- Transit & HOV: The HCT fixed guide-way must be located on the I-405 alignment / corridor prior to receiving support from the City of Renton.
- Transit & HOV: BRT should provide adequate capital improvements to reach transit goals and should not use BNSF right-of-way in Renton.
- Transit & HOV: HOV express on I-405 w/ direct-access should be combined with needed arterial HOV improvements.
- Transit & HOV: Support added park & ride capacity to match demand as long as it is primarily located within the city limits.
- Arterial: Additional funding contribution by I-405 Corridor Program to assume the completion of planned arterial improvements. Minimize additional ROW needs.
- Freeway: Freeway improvement elements should minimize right-of-way needs and impacts on sensitive areas. Elements 8 & 9 must be included in the addition of 2 GP lanes.
- Freeway: GP and HOV improvements including grade separation S/B incorporated into the final configuration of SR-167 / I-405 interchange project.
- Non-Motorized: Include new projects in Renton's Non-motorized plan S/B included in corridor bicycle and pedestrian elements.
- Other Elements: Managed Lanes: this concept must have public support first prior to receiving support from City of Renton.
- Other Elements: Third-lane south of I-90 / Lane Balance: the additional ROW needs could impact neighborhoods – Renton City Council has endorsed Alternative #3 – 2 GP Lanes.

WSDOT

- Transportation Demand Management: Allow flexibility for continued dialogue on regional congestion pricing; continue evaluation of TDM for cost-effectiveness.
- Transit & HOV: Conduct further evaluation for cost-effectiveness of the 60 to 100% service expansion of transit based upon the year of operations.
- Transit & HOV: Dont preclude the use of HCT guide-way – be consistent with the MTP.
- Transit & HOV: The development of physically separated HCT and Bus-Rapid-Transit elements should support development of transit service levels and should have a strong operational link to managed lanes.
- Transit & HOV: I-405 Direct-Access in Bothell and Factoria require specific site evaluations. Ensure continued evaluation of cost-effectiveness and do not preclude future expansion.
- Freeway: Hill-climbing lanes are still needed for grades.
- Freeway: In the addition of 2 GP lanes, need to revise description to reflect as a separate roadway, not express-lanes, which could be implemented as managed lanes.
- Freeway: Collector-Distributor lanes should have corridor level flow analysis, additional analysis at interchanges and further evaluation of collector/distributor, truck-climbing lanes and auxiliary lanes in the FEIS.
- Freeway: An SR-167 corridor evaluation is needed for one or two lanes or managed lanes. There is a need to provide an auxiliary lane from I-405 to 180th Street interchange. Improved connections to I-405 subject to FHWA Added-Access reports & approval.
- Arterial: The expansion of north-south arterial capacity should support east-west connections across I-405. They should also support transit-oriented development and TDM. If lower freeway capacity alternatives prevail, expansion of north-south arterials is required to meet travel demands.
- Non-Motorized: Pedestrian and bicycle improvement elements should support commute trips, TDM/TOD Land-use and transit access. Do not preclude the BNSF Corridor for future transit.
- Freight: FAST II recommendations need to be included in future improvements, subject to cost-effectiveness evaluation. Provide for truck-climbing lanes in order to support freight mobility.
- Outstanding Issues: WSDOT has policy interest in preserving BNSF right-of-way for future transportation uses. These future transportation uses should be developed collaboratively with regional and local transportation planning efforts.
- Outstanding Issues: The lane-balance analysis should look to collector/distributor, auxiliary and truck climbing lanes in the SR-167 to I-90 segment of I-405.
- Outstanding Issues: The goal of managed lanes is to maximize the vehicle and person throughput in the corridor. The operational concept has merit for further evaluation. Tolls have merit for management of managed lanes. It should include a 4 –foot buffer in the design cross-section.

Puget Sound Clean Air Agency (PSCAPA)

- Transit & HOV: Further study is needed for HCT / BRT fixed-guide-ways and the impacts must be identified by component. The selected alternative(s) must be adaptable to changing technology. The selected design should not be mixed within the general traffic congestion.
- Transit & HOV: The addition of park-and-ride capacity should emphasize park and walk lots.
- Freeway: The addition of freeway general-purpose capacity should emphasize the smallest level of capacity expansion possible.
- Arterial: We would support north-south arterial capacity expansion provided further study demonstrates how this element could support expansion transit.

Puget Sound Regional Council

- BRT – High Capacity Transit: Ensure that the footprint within current right-of-way does not preclude future additional technologies, e.g., ability to accommodate elevated systems.
- High Capacity Transit: Protect ROW footprint to accommodate possible future HCT. Also, verify that excess access points do not aggravate current and future congestion.
- Arterial Connections: Coordinate with possible north-south container train traffic on BNSF line during peak periods.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

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April 5, 2002

Ray Hellwig
Northwest Regional Director
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452
Mail Stop NB-81

RE: I-405 Corridor Environmental Program

Dear Mr. Hellwig:

Thank you for your involvement in the I-405 Corridor Program environmental review and Early Action Mitigation development process. We are writing in response to Megan White's March 14, 2002 letter to Bruce Smith and the subsequent meeting held between our agencies on March 18, 2002. At this meeting, we discussed opportunities for improving the Proposed Early Action Environmental Impact Mitigation Decision Making Process.

The aforementioned document was created to outline a process for making decisions on early-action mitigation for impacts to water resources, wetlands, floodplains, protected aquatic species and habitat and protected upland species and habitat. It was also designed to be consistent with and build upon the "Compensatory Mitigation Requirements" for stormwater specified in subsection IV.D.7 of the Alternative Mitigation Policy Guidance Interagency Implementation Agreement jointly developed by our agencies in response to RCW 77.85.110. Through your letter and our meeting, we came to appreciate and understand that the Washington State Department of Ecology (Ecology) would like additional clarification regarding how the process applies to stormwater impact mitigation.

We agreed that:

1. The Washington State Department of Transportation (WSDOT) is committed to the protection of water quality through compliance with the federal and state water quality standards;

2. WSDOT will add language to the early-action mitigation process indicating that the process will be more fully developed to demonstrate how it would apply to stormwater and water quality;

3. WSDOT and Ecology will work cooperatively to further develop the early-action mitigation process to demonstrate how it would apply to stormwater and water quality. In doing so, our goal is to follow the points outlined in your March 14th letter;

4. Working together, WSDOT and Ecology, can make additional improvements to the Early Action Environmental Impact Mitigation Decision Making Process, to further develop a flexible process for demonstrating that, in some cases, the best mechanism for protecting water quality is through early-action and off-site mitigation;

5. TMDL development would not be required to demonstrate this and WSDOT will provide the technical analysis necessary to determine stormwater impacts on receiving water bodies and the appropriate mitigation needed; and

6. WSDOT has access to and is currently refining the tools needed to implement early-action and off-site mitigation and will work closely with Ecology to generate to products necessary to achieve this goal.

In addition to the agreements made at our March meeting, we further commit to work on the precepts agreed to in concept between Director Tom Fitzsimmons and Secretary Doug MacDonald involving a Clean Water Act Re-authorization Policy they discussed on March 26, 2002.

The opportunities ahead for success are many and we will work toward a collaborative state position on stormwater that leads to effective outcomes for the environment and transportation.

If you have any questions, please do not hesitate to contact either of us. Thank you.

Sincerely,

Jerry Alb
Director of Environmental Services
WSDOT Environmental Affairs Office

Michael Cummings
Dir. of Environmental and Systems Integration
WSDOT Urban Corridor Office

Cc: Tom Fitzsimmons, Department of Ecology
Megan White, Department of Ecology
Doug MacDonald, Secretary, WSDOT
John Conrad, WSDOT
Don Nelson, WSDOT

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May 23, 2002

Joan McBride, Councilmember
City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033

RE: I-405 Concurrence Point 3, Conflict Resolution

Dear Ms. McBride:

This letter serves to inform you that the Washington State Department of Transportation (WSDOT) in conjunction with the co-lead agencies Federal Highway Administration, Federal Transit Administration, King County and Sound Transit is initiating the conflict resolution process for the I-405 Corridor Program. This process is being initiated for concurrence point 3 of the Re-Invent NEPA Pilot Project. Lack of concurrence poses a critical undue hardship for the Corridor Program and its resources. As such, WSDOT will be elevating the conflict resolution to Level 3 of our procedures (see enclosed).

On March 19, 2002 WSDOT sent a package to the I-405 Corridor Program Steering Committee requesting concurrence on the Corridor Program Environmental Impact Statement (EIS) Preferred Alternative and mitigation concept. In accordance with procedures identified in the Re-Invent NEPA pilot project, this package represents the third and final concurrence point. Response was requested by April 5, 2002.

In an effort to keep this critical project moving and achieve our goal for a consensus driven EIS process, the co-leads will be referring the unresolved issues to the executive level decision makers within each agency. In accordance with the procedures, it is expected that a meeting among these decision makers will be scheduled within 5 calendar days. You will be contacted shortly to make the arrangements for that meeting.

Should you have any questions, please contact me at (206) 464-6223.

Sincerely,

Michael Cummings, Director of Environmental and Systems Integration
WSDOT Urban Corridor Office

Cc: Daniel Mathis, FHWA
James Leonard, FHWA
John Okamoto, WSDOT
Harold Taniguchi, King County
Ann Martin, King County
Jim Arndt, Kirkland

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May 23, 2002

Rosemarie Ives, Mayor
City of Redmond
P.O Box 97010
Redmond, WA 98073

RE: I-405 Concurrence Point 3, Conflict Resolution

Dear Mayor Ives:

This letter serves to inform you that the Washington State Department of Transportation (WSDOT) in conjunction with the co-lead agencies Federal Highway Administration, Federal Transit Administration, King County and Sound Transit is initiating the conflict resolution process for the I-405 Corridor Program. This process is being initiated for concurrence point 3 of the Re-Invent NEPA Pilot Project. Lack of concurrence poses a critical undue hardship for the Corridor Program and its resources. As such, WSDOT will be elevating the conflict resolution to Level 3 of our procedures (see enclosed).

On March 19, 2002 WSDOT sent a package to the I-405 Corridor Program Steering Committee requesting concurrence on the Corridor Program Environmental Impact Statement (EIS) Preferred Alternative and mitigation concept. In accordance with procedures identified in the Re-Invent NEPA pilot project, this package represents the third and final concurrence point. Response was requested by April 5, 2002.

In an effort to keep this critical project moving and achieve our goal for a consensus driven EIS process, the co-leads will be referring the unresolved issues to the executive level decision makers within each agency. In accordance with the procedures, it is expected that a meeting among these decision makers will be scheduled within 5 calendar days. You will be contacted shortly to make the arrangements for that meeting.

Should you have any questions, please contact me at (206) 464-6223.

Sincerely,

Michael Cummings, Director of Environmental and Systems Integration
WSDOT Urban Corridor Office

Cc: Daniel Mathis, FHWA
James Leonard, FHWA
John Okamoto, WSDOT
Harold Taniguchi, King County
Ann Martin, King County
Terry Marpert, Redmond

Conflict Resolution Procedure
for the
Transportation Decision Making Process

1. Introduction

1.1 Purpose

1.1.1 The purpose of this conflict resolution procedure is to provide a process to solve disagreements among members of the Steering Committee (SC) including the Agencies/Tribes with jurisdiction (ATJ). The intent of this procedure is to improve communication in the event of a conflict and to expeditiously resolve conflict at the lowest level through SC consensus.

1.2 Starting Conflict resolution

1.2.1 Level I conflict resolution procedures, described in Section 3, may be initiated by the SC facilitator. If the involved parties decide this process will not work, an alternative conflict resolution process can be used if all parties agree to a new process.

1.2.2 If an outside facilitator or mediator is needed, the Project Management Team (PMT) and the Ombudsman together with the Transportation Decision Makers, will appoint the necessary person.

Reasons to initiate this process may include:

- agreement that consensus cannot be reached on one of the nine points
- unresolved written non-concurrence by an Agency/Tribe with Jurisdiction
- lack of response within agreed-upon time limits by an AJT
- substantive departure from the process

2. Normal Issue Resolution

2.1 Process

2.1.1 See the Operation Guidelines section in the Steering Committee Charter for the general operating process for discussing and resolving the many issues associated with the normal course of developing a Corridor EIS.

2.2 Goal

2.2.1 The goal is to have the Corridor EIS process be consensus driven. This does not always mean unanimity, but at least substantial agreement. Minority reports can be made and the SC can elect to go forward if it is agreed that the minority view has been heard, understood, properly recorded, and the SC is comfortable moving to the next step. If the SC decides that it cannot reach the level of agreement necessary, then the Level I Conflict Resolution process may be initiated.

3. Level I Conflict Resolution

3.1 Level I conflict resolution is resolution between/among the staff of the group(s) in conflict to resolve the issue(s) of contention. If a member of the SC with a conflict does not have agency or tribal affiliation the member shall represent themselves in the staff level group.

3.1.1 Level I conflict resolution may be initiated when the SC decides they have reached one of the points listed in 1.2.2.

3.1.2 Level I conflict resolution shall first consist of each of the parties writing an issue paper regarding the conflict and pertinent background information. The Ombudsman may serve as the representative of the majority if there is a majority opinion.

3.1.3 Level I conflict resolution includes making every effort to resolve the conflict through simple facilitation and mediation sessions. Outside facilitators and mediators can be appointed by the Ombudsman and the Transportation Decision Makers.

3.1.4 If the issue(s) cannot be resolved at the staff level within twenty calendar days, or when the strict implementation of some aspect(s) of the pilot project process will require a change in a member agency's internal policies, procedures, regulations and laws, etc., or will pose undue hardship to such agency's program, personnel, or resources, Level II conflict resolution will be initiated.

4. Level II Conflict Resolution

4.1 Level II conflict resolution is between/among management level decision makers. If a member of the SC with a conflict does not have agency or tribal affiliation, the member shall represent themselves in the management level group.

4.1.1 The issue paper, updated to reflect the Level I conflict resolution efforts, is referred to management of equal stature in each member agency's organization.

4.1.2 Within five calendar days of referral, the management will schedule a meeting to resolve the issue(s). Management will use discussion, facilitation, mediation, and some consensus determination method, which will be defined at the time and is agreeable to all parties, to resolve the issue(s) as quickly as is practical.

4.1.3 Findings of the Level II conflict resolution process will be written and distributed to all member parties. Regulatory agencies will consider the findings of this process in making future decisions on this project.

5. Level III Conflict Resolution

5.1 Level III conflict resolution is between/among executive level decision makers and can only be utilized for issues by Agencies/Tribes with Jurisdiction.

5.1.1 The issue paper, updated to reflect the Level II conflict resolution efforts, is referred to executives of equal stature in each member agency's organization.

5.1.2 Within five calendar days of referral, the executives will schedule a meeting to resolve the issue(s). They will use discussion, facilitation, mediation, and some consensus determination method, which will be defined at the time and is agreeable to all parties, to resolve the issue(s) as quickly as is practical.

5.1.3 Findings of the Level III conflict resolution process will be written and distributed to all member parties. Regulatory agencies will consider the findings of this process in making future decisions on this project.

APPENDIX G

I-405 Corridor Program
Environmental Justice Analysis

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APPENDIX G: I-405 CORRIDOR PROGRAM EIS ENVIRONMENTAL JUSTICE ANALYSIS

Introduction

Executive Order (EO) 12898, issued by President Clinton in 1994, requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations…" In his memo transmitting the Executive Order to federal agencies, President Clinton further specified that, "Each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low-income communities, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA)."

Guidance on how to implement EO 12898 and conduct an environmental justice analysis has been issued by the President's Council on Environmental Quality (CEQ, 1997) and several federal agencies, including the U.S. Department of Transportation (DOT Order 5610.2) and the Federal Highway Administration (FHWA Order 6640.23). These orders establish that it is Federal policy to avoid to the extent practicable disproportionately high and adverse human health or environmental impacts on the minority or low-income population.

Methodology and Approach

The I-405 Corridor Program alternatives were evaluated for compliance with EO 12898 and FHWA Order 6640.23. For this type of analysis, three fundamental evaluation measures are used. First, a determination is made as to whether a minority or low-income population exists in the impact zones. Secondly, a determination is made as to which impacts of the alternatives are high and adverse. The third measure is one of magnitude of distribution or intensity to determine if high and adverse impacts fall disproportionately on the minority or low-income population.

The environmental justice analysis examined both minority and low-income populations in the I-405 Corridor Program study area. For information on the distribution of minority and low-income populations, 1990 census data were used (U.S. Census Bureau 1992). Race and income data were reviewed at the finest level available from the census, i.e., Census Block for race and Census Block Group for income. Based on 1990 census data, the minority population as a percentage of the overall study area was determined to be 10 percent, and the low-income population as a percentage of the overall study area was determined to be 4 percent. Figure G-1 shows the location of minority populations in the study area at the Census Block level. The distribution of low-income populations was not able to be mapped because their numbers were too few to be apparent at the Census Block Group level.

The expertise reports prepared for the I-405 Corridor Program Environmental Impact Statement (EIS) were reviewed to determine which environmental or human health impacts could reach the level of high and adverse impacts after proposed mitigation measures were implemented. In addition, any environmental or human health impacts that were of concern to the minority and low-income populations would have been considered for further analysis.

Since there is no specific guidance in EO 12898 or FHWA Order 6640.23, the test of disproportionality is made on the basis described in the U.S. Environmental Protection Agency's (USEPA) Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits (Draft Revised Investigation Guidance) (USEPA, June 2000). This guidance suggests two to three standard deviations above the mean as a quantitative measure of disparate effect.

While each element of this approach was conducted, no detailed analysis was required to make a final determination. This is because of the following:

1. None of the environmental or human health impacts identified in the expertise reports prepared for the I-405 Corridor Program Environmental Impact Statement would reach the level of high and adverse after proposed mitigation measures were implemented.

2. There was no indication, based on the outreach and public involvement program to date, that there were issues of concern to the minority or low-income populations that would warrant further study.

Coordination with Agencies and Jurisdictions

Findings on issues of potential concern to the minority and low-income populations were based on public outreach (see "Outreach to Target Populations" below) and discussions with planners in Bellevue, Renton, Kirkland, and Snohomish County, as well as health department planners from south, east, and Northshore King County that were conducted by Carol Hunter of WSDOT. Ms. Hunter identified several initial locations of potential environmental justice sensitivity (listed from south to north):

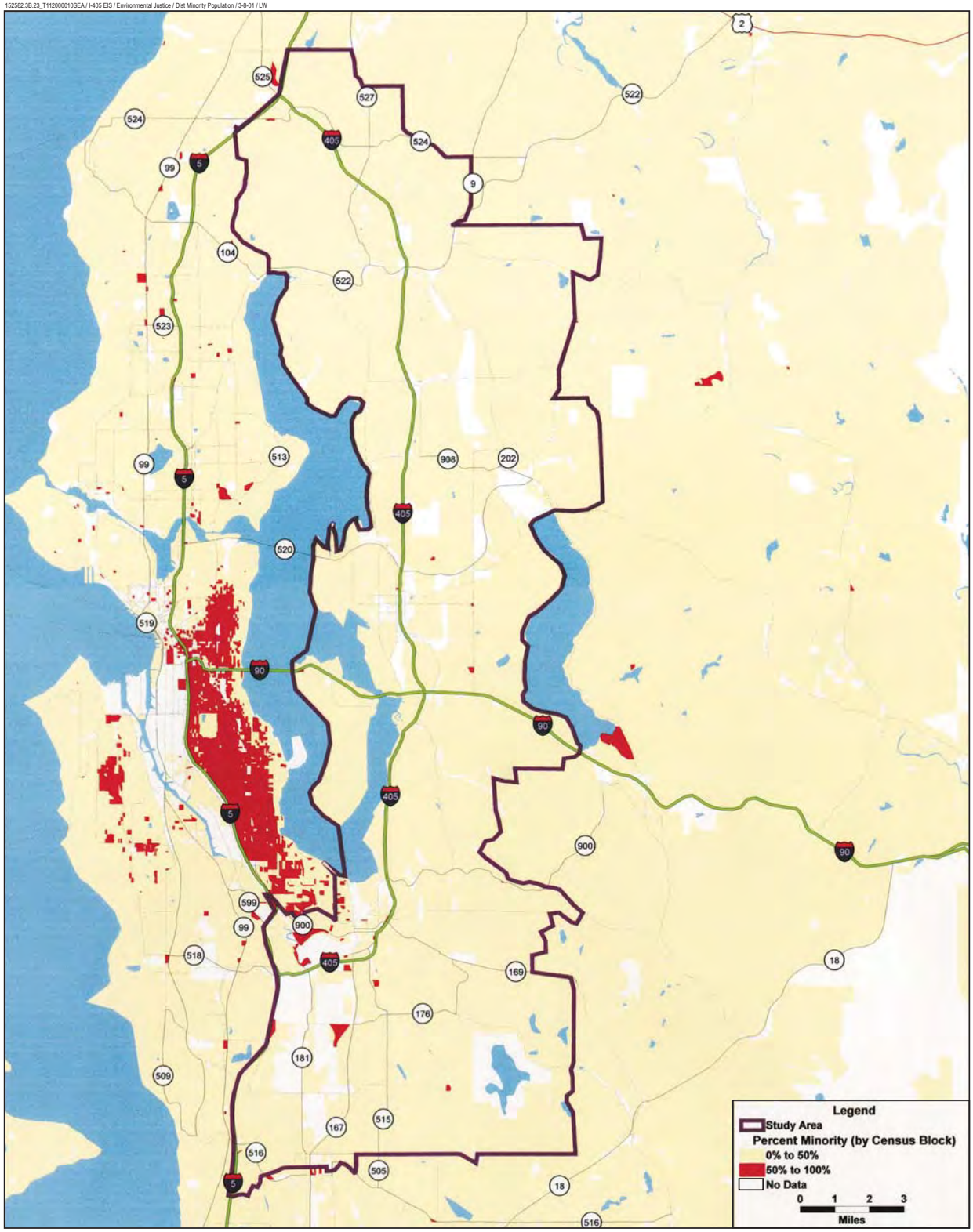
I-405 Expansion:

- Northeast quadrant of I-405/I-5 interchange area in Tukwila
- A large area in Renton south of Boeing
- Southeast quadrant of the I-90/I-405 interchange in Bellevue
- Between NE 8th Street and Lake Hills Connector in Bellevue
- Totem Lake area in Kirkland, NE 116th to NE 132nd Street
- Northwest quadrant of the I-405/SR 522 interchange in the Bothell area
- West of the I-405/I-5 interchange in Lynnwood

Arterial Expansion:

- A large area in Renton south of Boeing
- I-90 to SR 520 and 120th to 174th / Crossroads area in Bellevue
- Between Bel-Red Road and West Lake Sammamish Parkway in Redmond/Bellevue

152582.3B.23_T112000010SEA / I-405 EIS / Environmental Justice / Dist Minority Population / 3-8-01 / LW



Distribution of the Minority Population Within the Study Area

Figure No. G-1

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From these contacts, a number of issues were initially identified as having the potential to affect the minority or low-income populations. These issues are discussed below, along with identification of specific components of the I-405 Corridor Program Preferred Alternative that could address these issues.

The transportation issues that emerged are largely related to transit. There is concern about the limited bus service (infrequent during the peak and even less so during non-peak hours) to industrial areas where many minorities are employed. There is little transit service to the industrial areas in the first place, and many industrial and hotel jobs have shifts beginning and ending when there is no transit service available at all. Vanpooling to industrial/hotel areas appears to be an attractive option according to those interviewed. Other areas/services that are difficult to access are health care and social services that are often located in "lower rent suburban areas" with little transit or only peak period service. For low-income working people, getting to health care facilities is problematic during traditional office hours. They often need evening appointments when transit is unavailable or very limited. Transit access to the University of Washington and language barriers limiting better access to current transit service were also mentioned as issues. The predominant non-English languages spoken in the general area include Spanish, Vietnamese, Mandarin, Ukrainian/Russian, and Korean.

Improving existing transit systems and connections in the study area is a key component of the I-405 Corridor Program. The Preferred Alternative would increase transit service in the study area by up to 75 percent based on demand, and would create 1,700 new vanpools—a 100 percent increase. In addition, the Preferred Alternative recommends more detailed examination of high-capacity transit options across Lake Washington and within the central Eastside area (Bellevue, Kirkland, and Redmond).

Maintaining and enhancing the pedestrian environment is of considerable concern. Many low-income people have limited access to private vehicles, so preserving the ability to walk to shopping, services, and transit is an important mobility issue. The impacts on the pedestrian environment are of particular concern in the arterial widening components of the alternatives.

Pedestrian and nonmotorized improvements are included throughout the study area under the I-405 Corridor Program Preferred Alternative. This alternative would connect existing neighborhoods by building eight new pedestrian/bicycle crossings over I-405. In addition, the Preferred Alternative would construct ten missing connections between existing trails, further enhancing pedestrian and nonmotorized access.

Widening of I-405 did not surface as a particularly important factor impacting low-income or minority groups. With the exception of the Renton area, there are very few pockets of low-income or minority communities directly adjacent to I-405. Tolls on I-405, however, could be a burden on the low-income population – but as one interviewee pointed out, the impact of the additional expense could be shared by carpooling.

Tolls or other pricing strategies are not proposed for implementation as part of the I-405 Corridor Program Preferred Alternative.

Outreach to the Target Populations

Public involvement is a key element in achieving environmental justice. FHWA Order 6640.23 Part 5(c) states that "FHWA will administer its governing statutes so as to identify and avoid

discrimination and disproportionately high and adverse effects on minority populations and low-income populations by: (Subpart 4) providing public involvement opportunities and considering the results thereof, including providing meaningful access to public information concerning the human health or environmental impacts and soliciting input from affected minority and low-income populations in considering alternatives during the planning and development of alternatives and decisions."

Public input to the I-405 Corridor Program has been an essential element of the environmental analysis, documentation, and review process. The public involvement program is ongoing and seeks to establish informed public consent for a strategy to improve mobility in the I-405 corridor. Nonetheless, the I-405 corridor provides a unique challenge for implementing a public involvement program. The project area is over 30 miles long and contains over 500,000 people. In addition, research has revealed that the corridor's special populations are served by few organized community organizations or media outlets, and instead are loosely affiliated.

In response a multi-media approach to public involvement was implemented that incorporates both broad-based and highly targeted communication tools and strategies. Included among these are a large (40-member) community advisory committee (I-405 Corridor Program Citizens Committee) representing a wide range of interests and backgrounds from throughout the corridor, an extensive media outreach program for widespread distribution of project information, public meetings conducted throughout the corridor, project newsletters, electronic newsletters, a comprehensive project web site containing key project documents, and a large-scale speakers bureau to make presentations to the large number of community organizations in the corridor.

In order to target public involvement efforts to minority and low-income populations, research was conducted to identify organizations that represent these groups so that project briefings and meeting could be set up to provide information and receive public comment. Through these efforts it was learned that very few formal organizations represent these groups in the I-405 corridor and the best way to provide information was through service providers to these populations. Contacts with public outreach staff from jurisdictions in the corridor confirmed this assessment. From this research, a unique special populations outreach approach was then developed that focused on service providers in the corridor that offer minorities, refugees, immigrants, and economically disadvantaged persons services such as English as a Second Language (ESL) classes, citizenship classes, counseling, food, and housing assistance.

Contact was made with a wide range of service providers (approximately 20) to identify interests and preferences for presentations and distributing information to their clients. Most preferred written materials and offered to display or distribute information to their clients. There was little interest in receiving presentations due to their limited time availability. A few expressed an interest in having a presentation and these have been or will be arranged.

The focus for the written materials was the issuance of the Draft EIS and the opportunities to participate in the public hearings, interact through the web site, send in comments, or attend committee meetings and offer comments. A special project fact sheet was developed and translated into Chinese, Russian, and Spanish for distribution through the service providers. The fact sheet highlighted opportunities to participate and where to obtain project information, including copies of the EIS. These translated fact sheets were distributed through the service organizationsas well as in local libraries and city halls.

The I-405 Corridor Program's public involvement process has been inclusive of all members of the public. All meetings for the project conformed to Americans with Disabilities Act (ADA) requirements, and materials have been provided in formats accessible by everyone. All public meetings and hearings have been accessible by public transit. The DEIS was distributed to all the public libraries in the corridor, most of which are served by transit. The FEIS will be distributed similarly.

Conclusion

After the proposed mitigation is implemented, none of the environmental or human health impacts identified in the expertise reports prepared for the I-405 Corridor Program EIS would reach the level of a high and adverse effect in the context of EO 12898 or FHWA Order 6640.23. As there are no high and adverse impacts as a result of this program, this analysis therefore concludes that no high and adverse human health or environmental effects are expected to fall disproportionately on minority or low-income populations. The program is therefore consistent with the policy established in EO 12898 and FHWA Order 6640.23.

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APPENDIX H

I-405 Corridor Program
Final Preliminary 4(f) Evaluation

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Appendix H

FINAL PRELIMINARY

SECTION 4(f) EVALUATION

I-405 Corridor Program

June 2002

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Final Preliminary Section 4(f) Evaluation

1. INTRODUCTION

Section 4(f) of the United States Department of Transportation (USDOT) Act of 1966 (49 U.S.C. 303 (C)) provides that the proposed use of any land from a significant publicly owned park, recreational area, wildlife and waterfowl refuge, or any significant historic site, will not be approved by the USDOT unless a determination is made that there is no feasible and prudent alternative to the use of land from that property. The Act also requires that the proposed action include all possible planning to minimize harm that may result from such use.

This Section 4(f) evaluation was prepared to provide information to the decision-makers concerning the potential effects of the I-405 Corridor Program alternatives. To advance the alternatives in the environmental decision-making process, it was necessary to identify the Section 4(f) resources that may be affected, and determine if it is possible to avoid or minimize those impacts.

Initial screening of Section 4(f) resources conducted at a program-level analysis revealed that 19 publicly-owned park/recreational areas, five registered historic properties, and one recorded archaeological resource within the I-405 Corridor Program study area could potentially be affected. After field investigation, 3 of the 19 total parks/recreation areas were determined to have areas that potentially would be permanently incorporated into a transportation facility. They include Mercer Slough Nature Park, Sammamish River Trail and the Cedar River Interpretive Trail and Park. None of the Section 4(f) resources would be temporarily occupied during construction to the extent that would constitute use, and 22 would have proximity effects that would be further evaluated during project-level review. The alternatives would not affect any wildlife or waterfowl refuges.

Consistent with 23 CFR 771.135(o), the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have made a preliminary determination that the Preferred Alternative incorporates all possible planning to minimize harm to Section 4(f) land and resources to the extent allowable based on the level of detail available at this corridor-level EIS stage. Furthermore, there are no feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land and resources; and no other feasible and prudent alternative is more effective than the Preferred Alternative in minimizing potential harm to Section 4(f) resources. Thus, opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the corridor-level stage of analysis. Based upon this preliminary determination, the Preferred Alternative is recommended for advancement for follow-on project-level environmental analysis, documentation, and review.

2. DESCRIPTION OF ACTION

2.1 Interstate 405 (I-405) Corridor Program Description

The FHWA, FTA, King County Department of Transportation (KCDOT), Sound Transit (ST), and the Washington State Department of Transportation (WSDOT) are the co-lead agencies on a program to address the identified transportation deficiencies in the I-405 corridor. The I-405 Corridor Program, with assistance from other state agencies and local governments, seeks to

identify a reasonable range of the best mix of modal solutions, transportation investments, and demand management strategies for meeting the program's overall purpose and need, which are summarized below.

The I-405 corridor includes a large number of arterial streets maintained by local jurisdictions. One characteristic of the Eastside (generally east of Lake Washington) arterial street network is that it is not dense, providing relatively few lanes to carry traffic. The roadway density of the Eastside is 9 to 10 lanes per mile, which is considerably less than in Seattle's I-5 corridor (generally west of Lake Washington), where the road density is 19 to 20 lanes per mile. In addition, much of the adjacent arterial system is discontinuous because of topography, physical features, and development patterns. As a result, I-405 carries substantially higher levels of non-regional trips than would be expected given its designation as an interstate highway, while traffic congestion on arterial streets remains severe.

The I-405 Corridor Program Draft Environmental Impact Statement (DEIS) identified and evaluated four packages of transportation improvements and actions that might meet travel needs in the corridor over the next 20 years. A No Action Alternative also was evaluated in the DEIS. In addition, the Preferred Alternative, which is a multimodal solution similar to Alternative 3 in the DEIS, is evaluated in the Final EIS.

The need identified for the I-405 Corridor Program is to improve personal and freight mobility and reduce foreseeable traffic congestion in the corridor in a manner that is safe, reliable, and cost-effective.

The purpose of the proposed action is to provide an efficient, integrated, and multimodal system of transportation solutions within the I-405 corridor that meet the project need in a manner that:

- Provides for maintenance or enhancement of livability for communities within the corridor;
- Provides for maintenance or improvement of air quality, protection or enhancement of fish-bearing streams, and regional environmental values such as continued integrity of the natural environment;
- Supports a vigorous state and regional economy by responding to existing and future travel needs; and
- Accommodates planned regional growth.

2.2 Alternatives Considered but Not Advanced for Detailed Study

Seven preliminary corridor alternatives with a mix of multimodal solutions (referred to here as themes) were recommended for consideration by the I-405 Corridor Program Citizen, Steering, and Executive committees. All themes were subjected to a screening analysis based on five categories of criteria:

- Transportation performance
- Financial performance and cost-effectiveness
- Consistency with land use plans and policies
- Social impacts
- Environmental impacts

Each category of criteria includes key indicators, which are the measures used to estimate the benefits and effects of each theme. In all, more than 25 different key criteria were evaluated, covering a wide range of natural and built environment concerns, including potential effects on publicly owned parks, trails, and recreational areas; historic sites; and known cultural resources.

The themes and the results of the screening analyses were presented for public review and feedback through public open houses, as well as through jurisdictional workshops and numerous community presentations conducted throughout the study area. The Citizen and Steering committees also participated in a series of meetings to receive and assess the screening results and public feedback.

The results of the screening analyses and feedback from the public and I-405 Corridor Program study committees revealed several cases where a transportation improvement being considered within one theme might be moved to a different theme to improve performance and ability to satisfy the purpose and need for the I-405 Corridor Program. In other cases, the screening results and feedback from local jurisdictions demonstrated that several transportation improvements and mobility strategies were not reasonably effective in meeting the purpose and need, and/or were likely to result in unreasonable and unacceptable environmental consequences.

The results of the public feedback and input of the Citizen and Steering committees were advanced to the Executive Committee, which recommended reconfiguration of the seven themes into four action alternatives. These four alternatives, along with the No Action Alternative, were then recommended by the Executive Committee to the co-lead agencies to be advanced for detailed study in the DEIS. Concurrence with the recommendation was provided by the agencies with jurisdiction as part of the Reinventing NEPA process and the four alternatives plus the No Action Alternative were adopted by the I-405 Corridor Program co-lead agencies for consideration in the DEIS. A more detailed discussion of the alternative development and screening process is discussed in Section 2.2 of the I-405 Corridor Program Final EIS.

Transportation improvements and mobility strategies that were not advanced for further consideration in the EIS are as follows:

1. Development of a new east King County freeway corridor that would include the new freeway identified through the Corridor Needs for East King County Study. This proposal was not advanced because it falls entirely outside of the corridor that is the focus of the purpose and need for the I-405 Corridor Program. In addition, the proposal would likely fail to meet at least two important objectives of the purpose and need related to planned regional growth and environmental protection.
2. Development of new east King County arterials that would include the new arterial/parkways identified through the Corridor Needs for East King County Study. This arterial scenario assumed capacity equivalent to the east King County freeway described previously, using new and existing right-of-way over three alignments. Like the freeway, this proposal also would likely violate the objectives of the I-405 Corridor Program purpose and need related to planned regional growth and environmental protection because of its effects outside the Urban Growth Boundary and because of the substantial impacts to the natural environment.

3. Addition of capacity on several north-south arterials was not advanced because the proposed improvements were not reasonably effective in meeting the I-405 Corridor Program purpose and need.

4. Implementation of free-flow right-turns on arterials was not advanced as an individual strategy; however, the concept is included in the broader category of proposed arterial improvements that are evaluated in the EIS.

5. Implementation of two reversible express lanes on I-405 from I-5 south to SR 520 was not advanced because the directional split of traffic on I-405 is not sufficient to justify reversible lanes.

6. Addition of barrier-separated freight lanes was not advanced because study results indicated that the volume of trucks projected to use the lanes would not be sufficient to warrant this treatment.

7. Addition of one HOV lane (in each direction), in conjunction with the existing HOV lanes on I-405 was not advanced because it does not meet the I-405 Corridor Program purpose and need. Modeling results showed that the HOV lane utilization would not be sufficient to reasonably reduce congestion or improve mobility relative to its cost.

8. Converting existing general-purpose lanes on I-405 to HOV lanes would reduce the number of general-purpose lanes. This strategy was not advanced because it does not meet the I-405 Corridor Program purpose and need, and it does not meet the transportation objectives relating to improving mobility and reducing congestion.

9. Elimination of one travel lane in each direction on I-405 would result in the conversion of an existing general-purpose lane on I-405 to alternative uses. This proposal was not advanced because it does not meet the I-405 Corridor Program purpose and need. It failed to reduce or maintain congestion levels compared to the No Action conditions under any reasonable scenario of increased transit service based upon modeling results.

10. Reducing the number of interchanges on I-405 would likely result in reduced access and mobility for many study area residents, employees, and businesses. For these reasons, the proposal was not believed to be reasonable or effective in meeting the I-405 Corridor Program purpose and need.

11. Addition of barrier-separated bicycle arterials was not advanced as an individual proposal because it was not specific enough to assess; however, the concept is compatible with the broader category of proposed non-motorized and pedestrian trail improvements that are evaluated in the EIS.

12. Addition of bike lanes on the NE 70th overpass arterials was not advanced as an individual proposal; however, the idea was considered in the broader context of non-motorized grade crossings of I-405 that are evaluated in the EIS.

13. Addition of more pedestrian signals was not advanced as an individual proposal because it was not a corridor-level solution and was not specific enough to assess; however, the concept is compatible with the broader category of proposed non-motorized and pedestrian improvements that are evaluated in the EIS.

14. Improving the Evergreen Point transit station was not advanced as a proposal because it is outside the scope of the I-405 Corridor Program; however, the proposal was advanced to the SR 520 Trans-Lake Washington Project DEIS for consideration.

15. Provision of special event buses in the I-405 corridor was not advanced as an individual strategy because it is not related to typical trips in the study area, and the proposal is not one that could be effectively implemented as a corridor solution to meet the I-405 Corridor Program purpose and need. However, the concept is compatible with the broader category of proposed transportation demand management measures that are evaluated in the EIS.

16. Reduction of transit fares by 50 percent was not advanced because changes in transit fares are regional policy, and the proposal was not one that could be effectively implemented as a corridor solution. In addition, the proposal does not meet the I-405 Corridor Program purpose and need. Study results indicated that this policy would not result in a reasonable modal shift or improvement in mobility relative to its cost. Elimination of transit fares also was dropped from further consideration for the same reasons.

17. Implementation of corridor congestion pricing applied only within the I-405 corridor was not advanced because it is a state or regional policy that could not be effectively implemented as a corridor solution. The effects of a regionally-applied congestion pricing policy remained as an element of the broader transportation demand management measures that are evaluated in the EIS.

18. Increasing the gasoline tax was not advanced because it is a state or regional policy that could not be effectively implemented as a corridor solution in response to the I-405 Corridor Program purpose and need.

19. Subsidizing relocation of workers to residential areas nearer their place of employment was not advanced because it is a regional policy that could not be effectively implemented as a corridor solution; however, the concept may be compatible with the broader category of proposed transportation demand management measures that are evaluated in the EIS.

20. Removing unlicensed drivers from the roadway system was not advanced because it is a state policy that could not be effectively implemented as a corridor solution in response to the I-405 Corridor Program purpose and need.

21. Removing existing sound walls along I-405 was not advanced because it does not meet the I-405 Corridor Program purpose and need. The sound walls are needed to provide important environmental mitigation for the existing facility.

2.3 Alternatives Advanced for Detailed Environmental Analysis

During the scoping phase of the I-405 Corridor Program Draft EIS, the numerous potential improvements were grouped into four action alternatives for analysis of relative impacts. While each action alternative has a different emphasis (e.g., high-capacity transit (HCT), transportation demand management (TDM), general capacity, etc.), all of the alternatives include a mix of transportation solutions. These alternatives, the No Action Alternative and the Preferred Alternative that was identified after receipt of public and agency comments on the Draft EIS are summarized and detailed in Appendix A of this evaluation report *I-405 Corridor Program Alternative Descriptions*. The five action alternatives are:

- Alternative 1 — High-Capacity Transit/Transportation Demand Management Emphasis
- Alternative 2 — Mixed Mode with High-Capacity Transit/Transit Emphasis
- Alternative 3 — Mixed Mode Emphasis
- Alternative 4 — General Capacity Emphasis
- Preferred Alternative

After careful study and consideration of public and agency comments received on the Draft EIS (contained in Volume 2 of the I-405 Corridor Program Final EIS), the co-lead agencies concluded that Alternative 1 would not meet the adopted purpose and need for the I-405 Corridor Program. In the best professional judgment of agency staff, this alternative is not a feasible and prudent alternative to achieve the purpose and need because of its inability to provide meaningful long term improvement in general purpose mobility, freight mobility, or reduce foreseeable traffic congestion. Although it is likely that an aggressive pricing strategy could reduce VMT by about 15 percent based on national experiences, as discussed under operational impacts in Section 3.12.4.2 of the Final EIS, without roadway expansion, Alternative 1 would:

- accommodate a minimal amount of the increased peak-period person travel demand in 2020;
- have minimal effect on reliability of travel time for general traffic;
- not be expected to reduce travel times for either general purpose or 3+ HOVs;
- not provide truck freight mobility improvements in the corridor;
- not reduce congestion; and
- provide no meaningful improvement in overall safety on I-405 or other study area facilities.

Because it would provide little benefit beyond that resulting from the No Action Alternative, Alternative 1 is not considered a cost-effective solution for potential implementation. Thus, the results for Alternative 1 are reported in this evaluation for comparison purposes only; Alternative 1 is not a viable alternative for consideration or selection through this Section 4(f) Evaluation.

The No Action Alternative was also evaluated. It includes improvement projects that are scheduled to be implemented over the next 6 years or so regardless of the I-405 Corridor Program. Figures C-1 through C-6 in Appendix C of this evaluation report illustrate each alternative.

Under the No Action Alternative, only limited expansion of state highways would occur. No expansion of I-405 is included; however, a new ramp modification southbound I-405 to southbound SR 167 would be constructed. Approximately 15 arterial widening and interchange improvement projects would be implemented within the study area by local agencies. Short-term minor construction necessary for continued operation of the existing transportation facilities would be accomplished, and minor safety improvements would be constructed as required.

It is assumed that Phase I of Sound Transit's regional transit plan would be completed. Approximately 36 HOV direct access projects, arterial HOV improvements, park-and-ride expansions, and transit center enhancements would be implemented in the study area as part of the No Action Alternative. Bus transit service levels by the 2020 horizon year are based upon the Puget Sound Regional Council (PSRC) Metropolitan Transportation Plan. A 20 percent increase in bus transit service hours above the current King County 6-year plan level is assumed by year 2020. Parking costs are expected to increase due to market forces. Additional urban centers and

major employment centers within the study area are also assumed to implement parking charges by 2020.

These baseline transportation improvement projects are the subject of separate and independent project-specific environmental analysis, documentation, and review. Specifically the effects of the No Action Alternative would be or have been evaluated within separate environmental analysis, documentation, and review processes and Section 4(f) analyses, where required. Their direct impacts are not specifically evaluated by the I-405 Corridor Program. However, for baseline comparison purposes, the secondary and cumulative impacts of these projects are addressed in the I-405 Corridor Program Final EIS.

Figure C-1 shows the locations of the improvements contained in the No Action Alternative. For further detailed information, refer to Appendix B of this evaluation report, which identifies the specific transportation improvements and mobility solutions contained within each element and alternative.

3. DESCRIPTION OF SECTION 4(f) RESOURCES

3.1 Methodology of Analysis

Prior to beginning the I-405 Corridor Program Draft EIS, FHWA, FTA and WSDOT determined that applying a "project" level Section 4(f) evaluation was not feasible given the program focus of the EIS and the limited design information available. It was concluded that a program-level analysis would be conducted. First, Section 4(f) resources within a quarter-mile of proposed improvements contained within each alternative were identified. The identified resources were then field verified based on conceptual designs to assess potential effects and to identify opportunities for avoidance and minimization of impacts.

Conducting a program-level Section 4(f) analysis at this early stage in the transportation planning process, commensurate with the level of detail contained in the I-405 Corridor Program EIS, was considered appropriate based on 23 CFR 771.135(o):

> When the first-tier, broad-scale EIS is prepared, the detailed information necessary to complete the section 4(f) evaluation may not be available at that stage in the development of the action. In such cases, an evaluation should be made on the potential impacts that a proposed action would have on section 4(f) land and whether those impacts could have a bearing on the decision to be made.

Furthermore, the agreed-upon approach and level of detail meets the intent of this section, which states:

> It is recognized that such planning at this stage would normally be limited to ensuring that opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the first-tier stage.

3.1.1 Recreational Park Properties

The program-level identification and analysis of park lands and recreational resources was conducted using the following steps:

Step 1. Identify resources in the entire study area.

Step 2. Determine resources within a quarter-mile of the proposed improvements using GIS mapping of park lands. The initial review was also based on the comprehensive plans of individual jurisdictions as they related to park resources.

Step 3. Use local comprehensive plans to gain an understanding of the level of service for park facilities, policies for development and protection of the parks, and potential mitigation measures to minimize impacts.

Step 4. With the resources identified in Step 2 and the information in Step 3, conduct a site reconnaissance using design concepts to estimate those resource lands that would be affected by the transportation improvements (either permanently incorporated, temporarily occupied, or affected by proximity to the improvements).

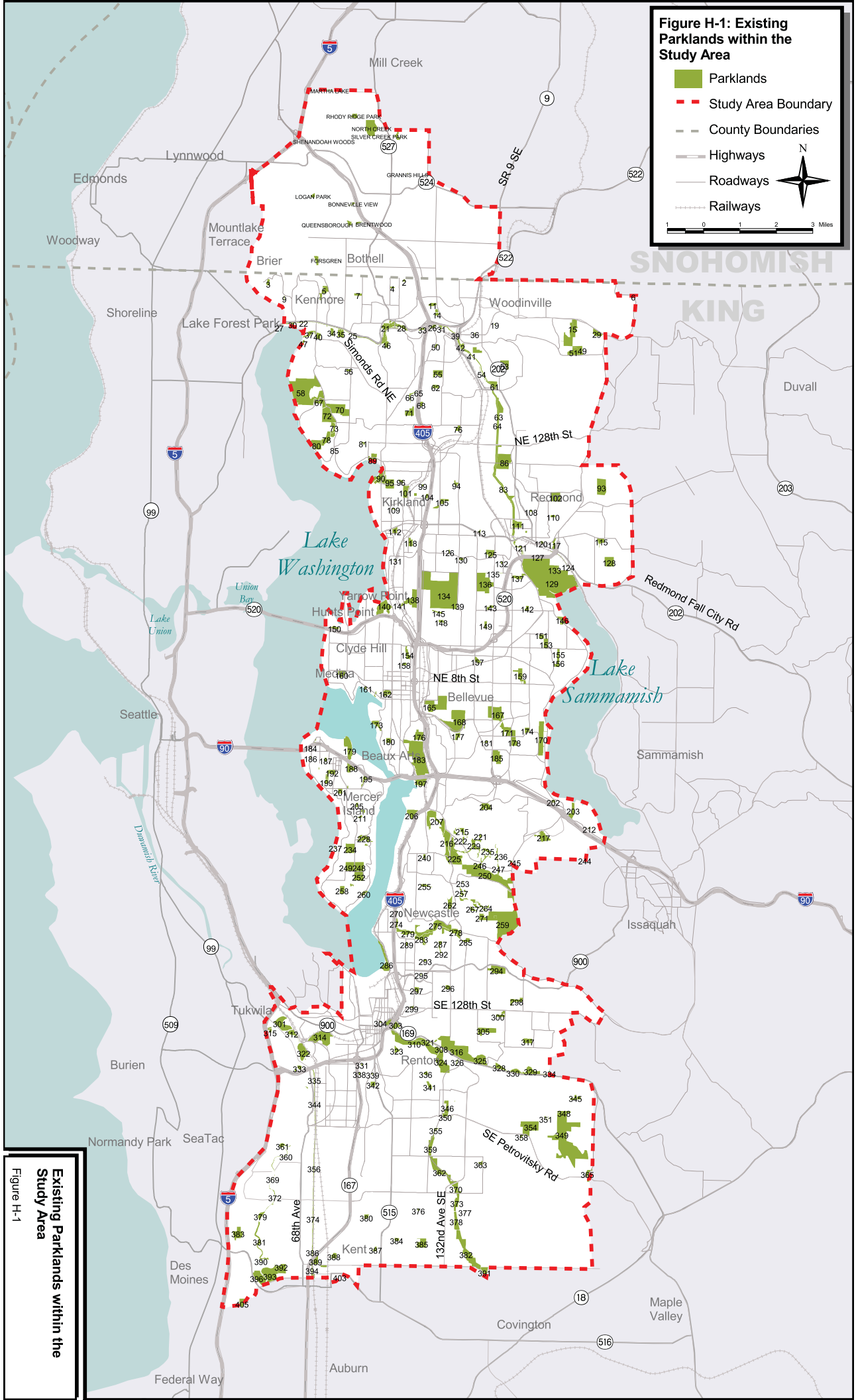
The analysis evaluated the potential for impacts on existing park lands and trails. A detailed assessment of loss of park functions was not completed during this review. The public park lands and trails that were identified included state, county, city, and neighborhood parks; trails; recreational active parks; passive parks; and sports fields and are indicated in Figure H-1.

3.1.2 Historic, Cultural, and Archaeological Screening Analysis

In consultation with the Washington State Office of Archaeology and Historic Preservation, an approach was developed for the I-405 Corridor Program EIS to consider inventoried cultural resources (archaeological properties and/or traditional cultural properties) and properties of the historic built environment. The approach is consistent with the programmatic evaluation for the park lands and recreational resources above. Data collection and analyses were preliminary and were not intended to provide a project-level environmental analysis, documentation, and review.

Consistent with the criteria identified in 23 CFR 771.135(e) and (g), this Section 4(f) evaluation considers historic and archaeological sites that are on or eligible for the National Register of Historic Places. In addition to these Section 4(f) resources, other historic and archaeological sites that are listed on a state or local register are considered to be potential Section 4(f) resources although their eligibility for the National Register has not been determined. This approach provides a conservative analysis whereby actual impacts to Section 4(f) resources are likely overstated because some resources may be found not to qualify when determinations of National Register eligibility are conducted during follow-on project-level environmental analysis, documentation, and review.

This approach is in contrast to the NEPA/SEPA approach discussed in Section 3.21 of the I-405 Corridor Program EIS. That approach employs much broader and more inclusive criteria for considering historic and archaeological resources. Specifically, the EIS criteria also considers all buildings constructed prior to 1960 to be historic resources because of their age. This criterion differs from the Section 4(f) criterion discussed above whereby a significant historic resource is one that is listed, or has been determined eligible for listing, on the National Register. Thus, because of differences in the criteria that are used, the number of historic and archaeological properties considered in the EIS is substantially greater than the list of resources that may qualify as Section 4(f) resources.



Existing Parklands within the Study Area

Figure H-1

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It is important to note that archaeological sites do not qualify as Section 4(f) resources when a determination has been made that the archaeological resource is important chiefly because of what can be learned by data recovery, and the resource has minimal value for preservation in place (23 CFR 771.135(g)2).

4. IMPACTS ON THE RESOURCES

4.1 Recreational Resources

Step 4 of the analysis indicates that resource lands within up to 19 significant publicly owned parks or recreational resources could be impacted by the proposed I-405 Corridor Program improvements. Potentially, 3 of the 19 parks/recreation areas would be permanently incorporated into a transportation facility. They include Mercer Slough Nature Park, Sammamish River Trail, and the Cedar River Interpretive Trail and Park. None of the 19 would be temporarily occupied during construction to an extent that would constitute "use", and 17 would have proximity effects that would be further evaluated at project-level environmental analysis, documentation, and review. Conceptual design information related to improvements, such as alignments of new lanes, allowed for opportunities to avoid or minimize potential impacts to each resource. At this stage of project development, it is not possible to discern whether any proximity effects to Section 4(f) resources would occur that would result in "constructive" use of the resources. Constructive use occurs when the transportation project does not incorporate land from a Section 4(f) resource, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection are substantially impaired (substantially diminished). Determination of potential constructive use is reserved for the project-level design, environmental analysis, documentation, and review.

Table 1 summarizes the results of field reconnaissance of each resource, identifies the potential for effects, and takes into consideration avoidance or minimization of impacts into the results. Figure H-1 indicates general locations of recreational resources. Figures 1.1 – 1.19 in Appendix D of this evaluation report provide vicinity maps of each individual recreational resource that may potentially be affected by the I-405 Corridor Program improvements and indicate project identification numbers.

Table 2 provides data about each resource land, identifies the associated potential acquisitions, temporary occupancies, and proximity effects of the improvements. All the alternatives under consideration would acquire approximately the same acreage of resource lands in Mercer Slough Nature Park, Sammamish River Trail and the Cedar River Interpretive Trail and Park, where the greatest impacts from the program improvements are expected.

The effects to Mercer Slough Nature Park and Sammamish River Trail would stem from aerial structures and piers constructed within the natural areas and trail areas, although the trails would be avoided or relocated within the resources. Because of the ability to adjust pier locations, relocate trails and minimize effects to high quality natural areas, Alternatives 2, 3, 4 and the Preferred Alternative would have approximately the same affect on Mercer Slough Nature Park.

At Sammamish River Trail the structure would be relatively high above the resource, and would not be expected to affect natural areas. Because of the ability to adjust pier locations, relocate

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Table 1: Affected and Potentially Affected Section 4(f) Resources Based on Site Reconnaissance

Alternative[a]	Recreational Resource Lands					Historic, Cultural and Archaeological Resources							
	Number Potentially Affected by Proposed Transportation Improvements	Number and Approximate Acres Affected by Permanent Incorporation into Transportation Facilities		Number Affected by Temporary Occupancy During Construction	Number Affected by Proximity Effects	Number Potentially Affected by Proposed Transportation Improvements		Number Affected by Permanent Incorporation into Transportation Facilities		Number Affected by Temporary Occupancy During Construction		Number Affected by Proximity Effects	
		Number	Approximate Acres			Historic	Archaeological	Historic	Archaeological	Historic	Archaeological	Historic	Archaeological
No Action Alternative	2 of 19	1	<1	0	2	None	None	None	None	None	None	None	None
Alternative 1	14 of 19	2	1	0	14	2	None	None	None	None	None	2	None
Alternative 2	18 of 19	3	2	0	18	4	1	None	Unknown	None	None	4	None
Alternative 3	12 of 19	3	2	0	12	5	1	None	Unknown	None	None	5	None
Alternative 4	11 of 19	3	2	0	11	4	1	None	Unknown	None	None	4	None
Preferred Alternative	12 of 19	3	2	0	12	4	1	None	Unknown	None	None	4	None

[a] The results for Alternative 1 are reported here for comparison purposes only; Alternative 1 is not a viable alternative for consideratio n or selection through this Section 4(f) Evaluation.

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trails and minimize effects to high quality park areas, Alternatives 2, 3, 4 and the Preferred Alternative would have approximately the same affect on Sammamish River Trail.

At Cedar River Interpretive Trail and Park, Alternatives 2, 3, 4 and the Preferred Alternative would to some extent impact a grassy, landscaped area adjacent to parking areas. This buffer area is not considered to have high operational value for the resource and the amount of resource required for each alternative is approximately the same. No other area of the resource would be impacted. All alternatives under consideration are expected to create approximately the same effects to these three parks and therefore, impacts from these alternatives are expected to be similar.

The recreational resources that would have potential effects from permanent incorporation into transportation facilities or temporary occupancy during construction include the following:

- **Sammamish River Trail –** This resource is a regional trail that runs north and south along the Sammamish River. The primary function of the trail is to provide an active recreational path for pedestrians and bicyclists. The trail is presently asphalt with gravel shoulders and no lighting under the bridge areas. It also has an unpaved equestrian trail parallel to the paved trail.

  Due to the different arterial and overpass projects, the trail would be impacted at numerous locations. The actual location of the piers for placement or replacement of bridges could avoid or minimize the impact to the physical trail. The resource function would not be lost with the implementation of the arterial and overpass/bridge improvements.

- **Mercer Slough Nature Park –** This resource is a regional park with substantial wetland areas, natural habitat, and a slough (flowing into Lake Washington) that is utilized for active small boat recreation. The park is located north and south of I-90 and due west of I-405 with public roads on the east and west boundaries. Due to the location of I-90, which presently bridges the middle of the Mercer Slough, the slough and associated wetlands would be impacted by the placement of the piers in the water for the overpass expansions.

  These impacts would have unavoidable impacts by the widening of direct connections/ramps for HOV projects. There would be temporary traffic detours during construction activity. The placement of the piers would not have a long-term impact on the resource functions because the trail would be relocated within the recreational resource land.

- **Cedar River Interpretive Trail and Park –** This resource is a sub-regional park with several soccer, baseball, and general sports fields; a community center; a community theater and waterfront recreational area; and a pedestrian/bicycle trail. The park is west of I-405 and south of SR 169. The expansion of lanes on I-405 would impact a landscape buffer adjacent to a parking area. The impacts to these recreational facilities could be mitigated. The primary functions of the park and trail would not be lost with the implementation of the I-405 widening and SR 169 improvements. The existing access to the surrounding public roads would need to be reconfigured, but would be limited by the existing river and the existing traffic signal on SR 169. There would be temporary traffic detours during construction activity.

Two recreational resources that were identified in Table 3, Field Investigations of Recreational Resources, of the Draft Preliminary Section 4(f) Evaluation as being potentially affected and also subject to potential unavoidable effects, have been removed from this Final Preliminary Section 4(f) Evaluation. These resources are Welcome Park in the city of Redmond and Panther Creek

Wetlands in the city of Renton. Additional coordination with the parks departments of the two cities resulted in a determination that they were not significant local recreational resources that would qualify as Section 4(f) resources. Please refer to Section 6.

4.2 Historic and Archaeological Resources

Five inventoried historic properties that are listed on the national, state, or local historic registers would potentially be affected by improvements contained within the action alternatives, as shown in Table 1. Table 3 summarizes the results of field reconnaissance for these historic properties, identifies the potential for effects, and concludes that avoidance of impacts on historic resources is expected to be possible in all cases by shifting the proposed road improvements away from the resource. Determination of potential constructive use is reserved to project-level design and environmental analysis, documentation, and review. Figure H-2 provides the general locations and names of the five historic resources, as well as other historic resources that are located in the vicinity of the proposed alternatives but would not be affected.

One recorded archaeological site could potentially be affected by Alternatives 2 through 4 and the Preferred Alternative, as shown in Table 1. Because of federal protection policies, the exact location of this resource is not disclosed.

Table 2: Field Investigations of Section 4(f) Recreational Resource Lands

Park and Jurisdiction	Park Facilities	Applicable Projects and Alternatives[a]	Permanent Incorporation into Transportation Facility	Temporary Occupancy During Construction	Proximity Effects
Coal Creek Park City of Renton (Fig. 1.1)	Regional Park 30 Acres Open Space Water Resource Pedestrian Trails Parking	R.BI-4 I-90/Coal Creek Ramp Improvements/I-90 to Coal Creek Interchange (Alt. 1-4 and Preferred Alt.) R.TC-3 I-405 Two GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-11 I-405 One GP Lane/N&S (Alt. 2 and 4) R.TC-22 I-405 Two Express Lanes/N&S (Alt. 4) R.HOV-36 Coal Creek HOV Priority Lane (Alt. 1-3 and Preferred Alt.)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Sammamish River Trail King County, City of Woodinville, City of Bothell, City of Redmond (Fig. 1.2)	Regional Trail 144 Acres Bike/Pedestrian Trail Water Resource Parking	NM.CR-7 Bike Overpass (Alt.1-4 and Preferred Alt.) R.AC-30 SR 202 Overpass Connection to 120th. (Alt. 2-4 and Preferred Alt.) R.PA-25 SR 522 Interchange Ramps (Alt. 2, 3, 4, and Preferred Alt.) R.AC-18/ Widen 202 4/5 Lanes, NE 90th to NE 145th R.PA-28 (Alt. 2, 3, 4, and Preferred Alt.) R-47 Widen NE 124th 4/5 Lanes, Willows Rd to SR 202 (No Action Alt., Alt. 1-4, and Preferred Alt.)	For all alternatives, pier placement would cross over resource lands (not parallel to the resource) and could be placed within the resource land depending on the length of the structural span. Trails would be avoided or relocated within the resource land. Less than 1 acre of resource lands would be permanently incorporated into the transportation facility.	For all alternatives, temporary occupancy of construction equipment and materials would be so minimal that it would not constitute a use of resource lands. The occupancy would not cause a change in land ownership; would be minor in nature; would not create permanent adverse physical impacts; would not interfere with activities or purposes of the resource lands; and the land would be fully restored.	For all alternatives, potential noise, air, visual or shading effects may occur to the activities, features, or attributes of the resource lands.
Marymoor Park King County (Fig. 1.3)	Regional Park 560 Acres Bike/Pedestrian Trails Sports Facilities Picnic Areas Water Resource Parking	R.28 Widen West Lake Sammamish Pkwy (No Action Alt., Alt. 1-4, and Preferred Alt.)	For all alternatives, no acquisition of resources lands would occur.	For all alternatives, temporary occupancy of construction equipment and materials would be so minimal that it would not constitute a use of resource lands. The occupancy would not cause a change in land ownership; would be minor in nature; would not create permanent adverse physical impacts; would not interfere with activities or purposes of the resource lands; and the land would be fully restored.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Spinney Homestead Park City of Kirkland (Fig. 1.4)	Neighborhood Park 7 Acres Sports Facility Baseball Fields Parking	R.BI-3 I-405 Southbound 405 Access lane (Alt. 1, 2,and 4) R.TC-6 I-405 Two GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-14 I-405 One GP Lane/N&S (Alt.2) R.TC-25 I-405 Express Lanes/N&S (Alt. 4) R.PA-14 City Bike/Ped/Emergency Overpass (Alt. 2-4 and Preferred Alt.)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, temporary occupancy of construction equipment and materials would be so minimal that it would not constitute a use of resource lands. The occupancy would not cause a change in land ownership; would be minor in nature; would not create permanent adverse physical impacts; would not interfere with activities or purposes of the resource lands; and the land would be fully restored.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands.
Mercer Slough Nature Park City of Bellevue (Fig. 1.5)	Regional Park 140 Acres Pedestrian/Bike Trails Natural Areas Picnic Areas Parking	R.BI-8 I-90 HOV Direct Connection (Alt. 1,2,and 4) R.HOV-60 I-90 to South Bellevue Park-and-Ride (widening of Bellevue Way) (Alt. 1, 2, 3, and Preferred Alt.) R.HOV-27 I-90 Freeway to Freeway HOV Ramps (Alt. 2-4 and Preferred Alt.)	For all alternatives, there will be an aerial structure over the nature park and trail. Placement of piers/structure would require acquisition of less than an acre of natural areas. Trails would be avoided or relocated within the resource land. There are similar permanent effects for all alternatives.	For all alternatives, temporary occupancy of construction equipment and materials would be so minimal that it would not constitute a use of resource lands. The occupancy would not cause a change in land ownership; would be minor in nature; would not create permanent adverse physical impacts; would not interfere with activities or purposes of the resource lands; and the land would be fully restored.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.

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Table 2: (Continued) Field Investigations of Section 4(f) Recreational Resource Lands

Park and Jurisdiction	Park Facilities	Applicable Projects and Alternatives[a]	Permanent Incorporation into Transportation Facility	Temporary Occupancy During Construction	Proximity Effects
Cedar River Interpretive Trail and Park City of Renton (Fig. 1.6)	Sub-Regional Park 23 Acres Outdoor Sports Facilities Community Center Community Theater Picnic Areas Bike/Pedestrian Trails Parking	R.TC-2 I-405 Two GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-21 I-405 Exp. Lanes/N&S (Alt. 4) R.HOV-43 SR-169 HOV Priority ramps (Alt. 2-4 and Preferred Alt.) R.TC-10 I-405 One GP Lane/N&S (Alt. 2 and 4)	For all alternatives, acquisition of resource lands would occur. These lands include a relatively narrow, grassy landscape buffer adjacent to parking lot. With flexibility during design, each alternative would require approximately one acre of buffer. Therefore, the effects for all alternatives would be considered the same.	For all alternatives, temporary occupancy of construction equipment and materials would be so minimal that it would not constitute a use of resource lands. The occupancy would not cause a change in land ownership; would be minor in nature; would not create permanent adverse physical impacts; would not interfere with activities or purposes of the resource lands; and the land would be fully restored.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Rhododendron Park (Kenmore Park) City of Kenmore (Fig. 1.7)	Sub-Regional Park 13. Acres Historic Horticultural Site Trails Picnic Areas Parking	R.PA-11& HOV-53 - 68th Ave HOV NB lane & Arterial Improvements (Alt. 1-3)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands
North Rose Hill Park City of Redmond (Fig. 1.8)	Neighborhood Park 13 Acres Water Resource Undeveloped	R.PA-12 124th Three Lanes, NE 85th St. to Slater Rd. NE (Alt. 2-4 and Preferred Alt.)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, no proximity effects are expected.
Arthur Johnson Park City of Redmond (Fig. 1.9)	Neighborhood Park 15 Acres Open Space Undeveloped	R.PA-18 Union Hill Road 4/5 Lanes, Avondale Rd to 196th Ave NE (Alt. 2-4 and Preferred Alt.)	For all alternatives, no acquisition of resource lands would occur	For all alternatives, no temporary occupancy of resource lands is expected	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands
Watershed Park City of Kirkland (Fig. 1.10)	Neighborhood Park 66 Acres Pedestrian Trail Open Space Parking	R.TC-5 I-405 Two GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-13 I-405 One GP Lane/N&S (Alt. 2 and 4) R.TC-24/32 I-405 Exp. Lanes & Slip Ramps/N&S (Alt. 4)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands. Alternative 4 would have more potential for visual impacts from RTC24/32.
Interurban Trail City of Tukwila (Fig. 1.11)	Sub Regional Trail 17 Acres Bike/Pedestrian Trail, Water Resource Parking	R.TC-1 I-405 Two GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-18 I-405 One GP Lane/N&S (Alt. 3) R.TC-20/29a I-405 Two Express Lanes (Alt. 4) R.IC-3/R.AC-36 SR 181Arterial Improvements (Alt. 2-4 and Preferred Alt.) T.HCT-1 Fixed Guideway, HCT SeaTac to Renton CBD (Alt. 1 and 2)	All projects are aerial and pass over the trails (widths vary). Pier placements would not impact the trail and would not require acquisitions. The HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands.
Northshore Athletic Parks King County (Fig. 1.12)	Regional Park 19 Acres Athletic Fields Parking	R.AC-18 Arterial Improvements (Preferred Alt.)	No acquisition of resource lands would occur.	No temporary occupancy is expected of resource lands.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands.

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Table 2: (Continued) Field Investigations of Section 4(f) Recreational Resource Lands

Park and Jurisdiction	Park Facilities	Applicable Projects and Alternatives[a]	Permanent Incorporation into Transportation Facility	Temporary Occupancy During Construction	Proximity Effects
May Creek Park Cities of Newcastle and Renton (Fig. 1.13)	Regional Park 110 Acres Trails Gathering areas Passive uses	R.BI-7 Kennydale Hill Climbing Lanes (Alt. 1, 2, 4, and Preferred Alt.) R.TC-3 Two additional GP Lanes/N&S (Alt. 3 and Preferred Alt.) R.TC-11 One Additional GP Lane/N&S (Alt. 2) R.TC-22 Two Express Lanes/N&S (Alt. 4)	For all alternatives, no acquisition of resource lands would occur.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise and air effects may occur to the activities, features, or attributes of the resource lands.
Kelsey Creek Park City of Bellevue (Fig. 1.14)	Regional Park 146 Acres Pedestrian Trails Water Resource Parking	T.HCT-5 Fixed Guideway HCT Factoria to Downtown Bellevue (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Bannerwood Ballfield Park City of Bellevue (Fig. 1.15)	Sub-Regional Park 13 Acres Sports Facility Parking	T.HCT-5 Fixed Guideway HCT Factoria to Downtown Bellevue (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Peter Kirk Park City of Kirkland (Fig. 1.16)	Sub-Regional Park 13 Acres Sports Facilities Picnic Areas Parking Public Art	T.HCT-7 Fixed Guideway HCT Bellevue to Totem Lake (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Terrace Park City of Kirkland (Fig. 1.17)	Neighborhood Park 2 Acres Sports Facilities Picnic Areas Parking	T.HCT-7 Fixed Guideway HCT Bellevue to Totem Lake (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Gene Coulon Park City of Renton (Figure 1.18)	Regional Park 56 Acres Sports Facilities Picnic Areas Parking Water activities Natural areas Outdoor concerts	T.HCT-2 Fixed Guideway HCT Renton CBD to NE 44th (Port Quendall) (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.
Kennydale Beach Park City of Renton (Figure 1.19)	Neighborhood Park 2 Acres Swimming Beach Parking	T.HCT-2 Fixed Guideway HCT Renton CBD to NE 44th (Port Quendall) (Alt. 1 and 2)	For both alternatives, the HCT improvements would occur predominantly on existing BNSF right-of-way. Enough right-of-way exists that no acquisition of resource lands is expected.	For all alternatives, no temporary occupancy of resource lands is expected.	For all alternatives, potential noise, air and visual effects may occur to the activities, features, or attributes of the resource lands.

[a] The results for Alternative 1 are reported here for comparison purposes only; Alternative 1 is not a viable alternative for consideration or selection through this Section 4(f) Evaluation.

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Table 3: Field Investigations of Historic and Archaeological Resources

Historic or Archaeological Resource	City/Address	Status	Applicable Projects and Alternatives[a]	Permanent Incorporation into Transportation Facility	Temporary Occupancy During Construction	Proximity Effects
Hollywood Farm	Woodinville Southeast of Woodinville at 14111 Northeast 145th Street	National Register, State Register	R.AC-17 Widen 202 4/5 lanes, NE 145th to SR 522 (Alt. 3, 4, and Preferred Alt.)	For all alternatives, no acquisition of resource would occur.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects may affect the activities, features, and attributes of the resources.
James Nelsen House	Tukwila 15643 West Valley Road	State Register	R.IC-3/R.AC-36 SR 181 Arterial Improvements (Alt. 2-4 and Preferred Alt.) NM.P&B-19 SR 181/West Valley Highway Add Bike Lanes (Alt. 1-4 and Preferred Alt.)	For all alternatives, no acquisition of resource would occur.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects may affect the activities, features, and attributes of the resources.
Bothell Lake Forest Park Highway (Brick Roadway in Curve)	Bothell Jaunita Drive and WA 522 at Wayne Curve	State Register	R.CF-5 SR 522 Connection, Bothell to NE 195th (Alt. 2 – 4 and Preferred Alt.)	For all alternatives, no acquisition of resource would occur.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects may affect the activities, features, and attributes of the resources.
French House	Kirkland 4202 Lake Washington Boulevard	Local Landmark	R.HOV-56 Lake Washington Blvd- HOV Priority Lane, SR 520 to Yarrow Bay (Alt. 1,2, 3, and Preferred Alt.)	For all alternatives, no acquisition of resource would occur.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects may affect the activities, features, and attributes of the resources.
Peter Saar Cemetery	Kent North side of S. 212th Street (Valley Freeway and 92nd Avenue S.)	Local Register	R.CF-8 SR 167 One GP Lane/N&S (Alt. 2 – 4)	For all alternatives, no acquisition of resource would occur.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects may affect the activities, features, and attributes of the resources.
45-KI467	Registered Archaeological Site Union Hill Road	State Register	R.PA-18 Union Hill Road 4/5 Lanes, Avondale Rd to 196th Ave NE (Alt. 2- 4 and Preferred Alt.)	For all alternatives, the potential for acquisition or displacement cannot be fully known until the extent of the resource site is adequately located and project design plans are developed.	No temporary occupancy of resources is expected.	Potential noise, air, and visual effects are not expected to affect the activities, features, and attributes of the resources.

[a] The results for Alternative 1 are reported here for comparison purposes only; Alternative 1 is not a viable alternative for consideration or selection through this Section 4(f) Evaluation.

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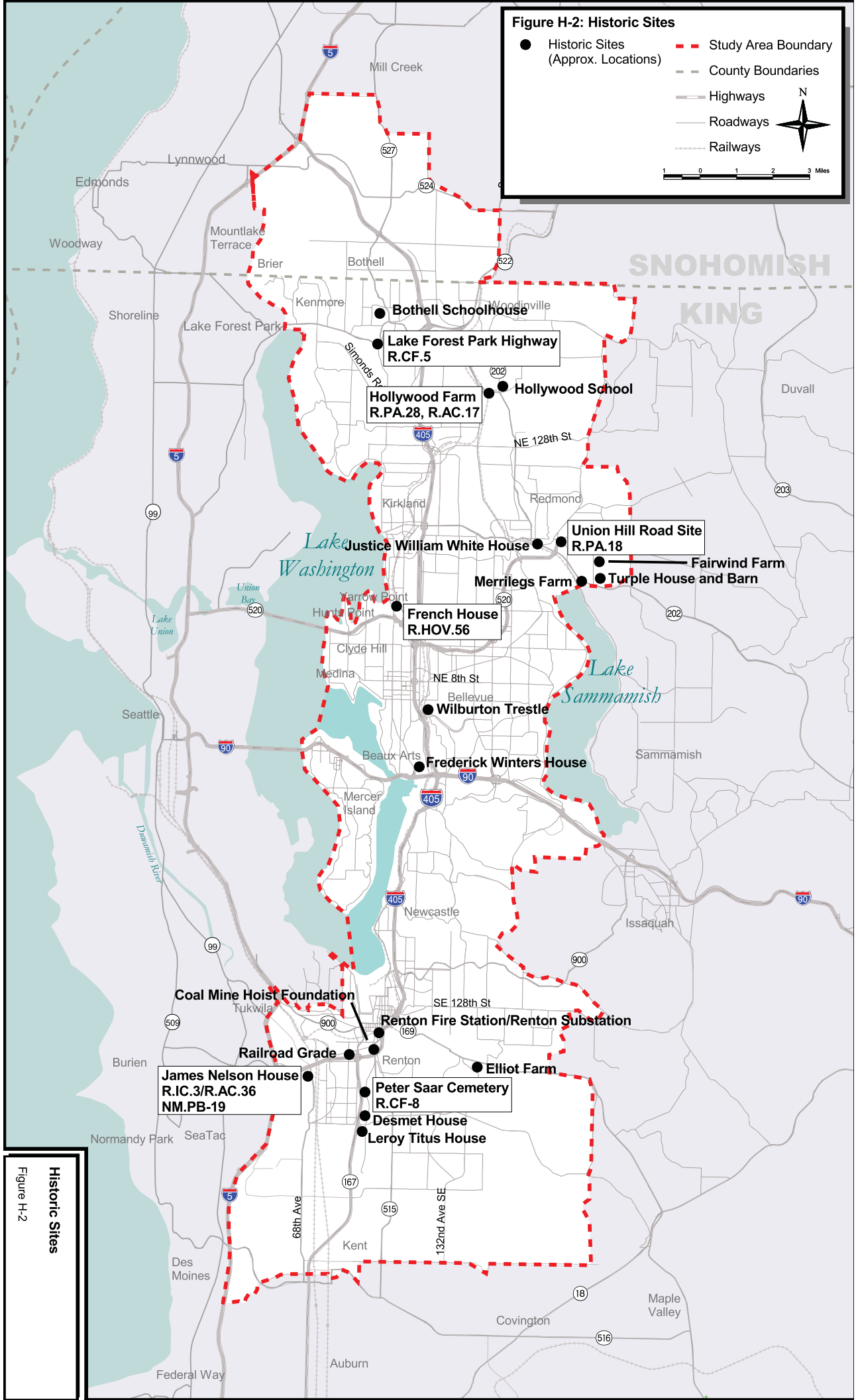

Historic Sites

Figure H-2

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5. MEASURES TO MITIGATE HARM

5.1 Potential Mitigation Measures

The purpose of mitigation measures with respect to Section 4(f) resources is to avoid or reduce harm caused by the construction and/or operation of alternatives. At this program level of analysis, potential mitigation measures are identified that might contribute to meeting federal, state, and local regulations. If the mitigation measures identified here are implemented, potential impacts associated with the projects could be substantially reduced. These measures could be considered individually or in combination with other measures, depending upon the identified impacts, which will be analyzed in greater detail during project-level design and environmental analysis, documentation, and review.

5.1.1 Recreational Resources

Typical potential mitigation measures for anticipated impacts on recreational resources include, but are not limited to:

- Modify project design to avoid or limit physical alteration, and/or visual, or long-term air and noise impacts.
- Create and implement Habitat Protection Plans where critical areas exist.
- Modify construction methods to avoid or limit construction-related impacts.
- Implement best management practices (BMPs), as approved and utilized by WSDOT, and other appropriate measures.
- Replace or enhance functions of parkland/trail.
- Protect significant trees.
- Provide traffic control (auto and pedestrian) to lessen the impacts to access and park functions during construction.

5.1.2 Historic Buildings and Structures

Typical potential mitigation measures for anticipated impacts on historic resources include, but are not limited to:

- Modify project design to avoid or limit physical alteration and/or visual, or long-term air and noise impacts.
- Modify construction methods to avoid or limit construction-related impacts.
- Ensure design compatibility with the historic setting and character of individual resources and historic districts.
- Consult with the State Historic Preservation Officer (SHPO) on project design elements that may damage, alter, or obscure views of National Register of Historic Properties (NRHP) listed or eligible historic resources.
- Employ sound-reduction measures such as landscape buffers, if appropriate.

When avoidance is not feasible and it is necessary to acquire and remove an historic resource, the resource may be moved to another site or, if no other mitigation is possible, the resource may be

demolished. The relocation or demolition of an historic resource requires complete review and approval by the SHPO and/or county or city landmark preservation board (or similar authority) and must meet established standards for documentation, site selection, and relocation methods. Finished documentation packages will be provided to the Washington SHPO and local consulting parties.

5.1.3 Archaeological Resources

General mitigation measures for archaeological resources may include archaeological monitoring, subsurface testing, and data recovery. Archaeological monitoring and subsurface testing (i.e., "presence/absence testing") may be warranted where construction is scheduled in areas of high probability for containing archaeological sites (but which exhibit no outward indications that such sites are actually present). Archaeological monitoring may also be warranted where preconstruction subsurface testing is not feasible.

Archaeological sites do not qualify as Section 4(f) resources when a determination has been made that the archaeological resource is important chiefly because of what can be learned by data recovery, and the resource has minimal value for preservation in place (23 CFR 771.135(g)2). Archaeological sites that qualify as Section 4(f) resources might be subject to "data recovery" (controlled archaeological excavations subject to SHPO review).

6. RECORD OF COORDINATION

FHWA held meetings with WSDOT and other agencies in September 2000 and May 2001 on the Section 4(f) analysis for the I-405 Corridor Program. The local agencies with jurisdiction of the Section 4(f) resources, including King County and the local cities, reviewed the draft recreational resources and historic resources discipline studies and could be directly involved in future detailed mitigation development as part of project-specific design. The consensus reached at the meetings was as follows:

- Historic and Archaeological Resources Consultation:– The scope was redefined[1] to acknowledge that an intensive project-level survey was not necessary (or possible) at this stage of the project development. It was acknowledged that there would be a subsequent project-level analysis for environmental clearance upon determination of the design and likely impacts of project-level alternatives.

  A corridor level of analysis could distinguish which alternatives were more or less likely to impact (require land acquisition or "constructively use") Section 4(f) historic, or archaeological resources, and a corridor level analysis was appropriate at this stage of the I-405 Corridor Program.

- Section 4(f) Recreational Resources Consultation:– It was determined that applying a standard "project" level Section 4(f) evaluation could not be done due to the limited design detail available for the corridor alternatives. It was also determined that it was not possible or prudent, due to the limited design detail for the alternatives, to accurately determine the extent of impacts of each alternative. The discussion then moved to a "corridor-level

[1] SHPO/FHWA/WSDOT Meeting 106/4(f) Agreed Upon Revised Methodology Scope, Sept. 7, 2000.

analysis," which would identify the parks and other potentially impacted Section 4(f) facilities based on approximate footprints of each of the alternatives.

Such an approach would allow for the Section 4(f) evaluation to be completed at the project level in later environmental analysis, documentation, and review when the specific impacts to the parks, trails, and historical and archeological resources could be adequately identified.

- Site Reconnaissance Section 4(f) Resources Consultation:– FHWA identified the need for further information on the specific park resources and historic resources that had been identified as being potentially affected or requiring land acquisition. Site reconnaissance, with the design engineers and planning staff, was determined to be the most effective approach to develop this information.[2]
- Cities of Redmond and Renton Section 4(f) Recreational Resources Consultation:– Consultation with Sharon Black at the City of Redmond Parks and Recreation Department and Leslie Betlach, the City of Renton Parks Administration Director occurred on May 2, 2002. Sharon Black and her staff confirmed that Welcome Park consisted of wetlands and possessed no significant recreational use potential. They agreed that this property was not a significant local recreational resource. Leslie Betlach confirmed that the Panther Creek Wetlands also did not contain any meaningful recreational use potential and should not be regarded as a significant local recreational resource.

7. CONCLUSION AND NEXT STEPS

The I-405 Corridor Program NEPA EIS process will conclude with a Record of Decision (ROD)that identifies a preferred alternative and mitigation. There will be additional opportunities and analyses to evaluate ways to avoid and/or minimize harm to Section 4(f) resources during project-level NEPA environmental analysis, documentation and review.

Consistent with 23 CFR 771.135(o), the FHWA and FTA have made a preliminary determination that the Preferred Alternative incorporates all possible planning to minimize harm to Section 4(f) land and resources to the extent allowable based on the level of detail available at this corridor-level EIS stage. Furthermore, there are no feasible and prudent locations or alternatives for the action to avoid the use of Section 4(f) land and resources; and no other feasible and prudent alternative is more effective than the Preferred Alternative in minimizing potential harm to Section 4(f) resources. Thus, opportunities to minimize harm at subsequent stages in the development process have not been precluded by decisions made at the corridor-level stage of analysis. Based upon this preliminary determination, the Preferred Alternative is recommended for advancement for follow-on project-level environmental analysis, documentation, and review.

[2] FHWA/DEA Meeting Agreed Upon Section 4(f) Site Reconnaissance Scope, May 15, 2001.

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APPENDIX A OF FINAL PRELIMINARY SECTION 4(f) EVALUATION: I-405 CORRIDOR PROGRAM ALTERNATIVE DESCRIPTIONS

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APPENDIX A:
I-405 CORRIDOR PROGRAM ALTERNATIVE DESCRIPTIONS

No Action Alternative

The No Action Alternative includes the funded highway and transit capital improvement projects of cities, counties, Sound Transit, and WSDOT. These projects are already in the pipeline for implementation within the next six years, and are assumed to occur regardless of the outcome of the I-405 Corridor Program. For this reason, they are referred to collectively as the No Action Alternative.

Under the No Action Alternative, only limited expansion of state highways would occur. No expansion of I-405 is included; however, a new southbound I-405 to southbound SR 167 ramp modification would be constructed. Approximately 15 arterial widening and interchange improvement projects would be implemented within the study area by local agencies. Short-term minor construction necessary for continued operation of the existing transportation facilities would be accomplished, and minor safety improvements would be constructed as required.

It is assumed that Phase I of Sound Transit's regional transit plan would be completed. Approximately 36 HOV direct access projects, arterial HOV improvements, park-and-ride expansions, and transit center enhancements would be implemented in the study area as part of the No Action Alternative. Bus transit service levels by the 2020 horizon year are based upon the Puget Sound Regional Council (PSRC) Metropolitan Transportation Plan. Parking costs are expected to increase due to market forces. Additional urban centers and major employment centers within the study area are also assumed to implement parking charges by 2020.

These baseline transportation improvement projects are the subject of separate and independent project-specific environmental analysis, documentation, and reviews. Their direct impacts are not specifically evaluated by the I-405 Corridor Program. The effects of the No Action projects are evaluated within separate environmental analysis, documentation, and review and Section 4(f) analyses, where required. For comparison purposes secondary and cumulative impacts of these projects are addressed as part of the analyses contained herein.

Figure C-1 shows the location of improvements contained in the No Action Alternative. For further details on the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives), which describes the major elements that are the building blocks for the alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

Alternative 1: High-Capacity Transit/TDM Emphasis

This alternative attempts to minimize the addition of new impervious surface from general-purpose transportation improvements, and to encourage transit use within the study area. To do this, Alternative 1 emphasizes reliance on a new form of High Capacity Transit (HCT) system (light rail, commuter rail, and monorail), substantial expansion of local bus transit service, non-physical mobility solutions such as regional transportation pricing, and transportation demand management (TDM) strategies. It does not include any increase in roadway capacity beyond the no action condition. All improvements contained in the No Action Alternative are included in

Alternative 1, as well as in the other action alternatives. Table A1 shows the system elements contained in each of the alternatives.

Alternative 1 includes a physically separated, fixed-guideway HCT system, potentially using some form of rail technology. The HCT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project DEIS. In addition to the fixed-guideway HCT service, bus transit service would be increased by about 100 percent compared to King County Metro's Fall 2001 proposed 6-year transit development plan. Arterial HOV priority for transit, additional park-and-ride capacity for 4,500 vehicles, and 26 transit center improvements also would be provided.

A package of basic improvements to I-405 would be implemented including climbing lanes, auxiliary lanes, I-90/Coal Creek interchange improvements, and I-405/SR 167 interchange improvements, among others. No additional general-purpose lanes on I-405 would be provided. Limited arterial HOV/transit improvements would be provided to facilitate access to I-405 and the fixed-guideway HCT system, along with non-physical treatments such as providing priority for transit at signals and intersections. Regional pricing strategies similar to those currently being studied by the Puget Sound Regional Council (PSRC) would be implemented, along with a package of core TDM strategies that are common to all of the action alternatives.

Figure C-2 shows the location of improvements contained in Alternative 1. For further details on the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives), which describes the major elements that are the building blocks for the alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

Table A1: System Elements Contained in Each Alternative

	No Action Alternative	Alternative 1 HCT/TDM Emphasis	Alternative 2 Mixed Mode with HCT/Transit Emphasis	Alternative 3 Mixed Mode Emphasis	Alternative 4 General Capacity Emphasis	Preferred Alternative
Committed and funded freeway projects	X	X	X	X	X	X
Committed and funded HOV projects	X	X	X	X	X	X
Committed and funded arterial projects	X	X	X	X	X	X
Park–and-ride expansions included in No Action	X	X	X	X	X	X
Transit center improvements included in No Action	X	X	X	X	X	X
Transportation Demand Management (TDM)	X	X	X	X	X	X
Expanded TDM regional congestion pricing strategies		X				[d]
Expand transit service by 100% compared to K. Co. 6-year plan		X	X	X		[e]
Expand transit service by 50% compared to K. Co. 6-year plan					X	
Physically separated, fixed-guideway HCT system		X	X			
Bus rapid transit operating in improved access HOV lanes				X		X
Arterial HOV priority for transit		X	X	X		X
HOV direct access ramps on I-405			X	X	X	X
Additional park-and-ride capacity expansion		X	X	X		X
Additional transit center improvements		X	X	X		X
Basic I-405 safety and operational improvements		X	X	X	X	X
I-405/ SR 167 interchange ramps for all major movements			X	X	X	X
One added general-purpose lane in each direction on I-405			X		X	
Two added general-purpose lanes in each direction on I-405				X		X
Two express lanes added in each on I-405 [a]					X	
Widen SR 167 by one lane each direction to study area boundary[c]			X	X	X	X
Improved capacity of freeways connecting to I-405			X	X	X	X
Planned arterial improvements			X	X	X	X
Complete missing segments of major arterial connecting routes [b]				X		X
Expand capacity on north-south arterials [b]					X	X
Upgraded arterial connections to I-405 [b]			X	X	X	X
Pedestrian / bicycle connections and crossings of I-405		X	X	X	X	X
Intelligent transportation system (ITS) improvements		X	X	X	X	X
Truck freight traffic enhancements		X	X	X		X

[a] To be studied as general-purpose lanes and as managed high-occupancy/toll (HOT) lanes.
[b] With jurisdictional approval.
[c] Preferred Alternative widens SR 167 by up to two lanes in each direction south to South 180th Street, but includes no widening beyond South 180th Street.
[d] Contingent upon adopted regional pricing strategy.
[e] Expansion limited to around 75 percent based on demand.

Alternative 2: Mixed Mode with High-Capacity Transit/Transit Emphasis

This alternative attempts to improve mobility options in the study area relative to Alternative 1 by providing the same substantial commitment to transit, combined with the minimum increase in roadway capacity for HOV and general-purpose traffic. To do this, Alternative 2 would implement a new physically separated, fixed-guideway HCT system; substantial expansion of local bus transit service; one added lane in each direction on I-405; and improvements to connecting arterials. All improvements contained in the No Action Alternative are included in Alternative 2, as well as in the other action alternatives.

Alternative 2 includes a physically separated, fixed-guideway HCT system, potentially using some form of rail technology. The HCT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah, and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project EIS. In addition to the fixed-guideway HCT service, bus transit service would be increased by 100 percent compared to King County Metro's Fall 2001 proposed 6-year transit development plan. This is a 50 percent increase in service compared to the current King County, Sound Transit, and Community Transit 6-year plans. Arterial HOV priority for transit, additional park-and-ride capacity for 4,500 vehicles, and additional 26 transit center improvements are included, as well as completion of the HOV freeway-to-freeway ramps along I-405.

To increase general-purpose capacity, I-405 would be widened by one lane in each direction. One lane would also be added in each direction on SR 167 to the study area boundary. The package of basic improvements to I-405 would be implemented, along with the core TDM strategies that are common to all of the action alternatives. New capacity improvements on connecting arterials and freeways would be provided along with planned arterial improvements of local jurisdictions.

Figure C-3 shows the location of improvements contained in Alternative 2. For further details on the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives), which describes the major elements for the alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

Alternative 3: Mixed Mode Emphasis

This alternative attempts to substantially improve mobility options for all travel modes, and to provide a HCT system throughout the study area at a lower cost than the physically separated, fixed-guideway system proposed in Alternatives 1 and 2. To do this, Alternative 3 would implement a new bus rapid transit (BRT) system, provide substantial expansion of local bus transit service, add two lanes in each direction on I-405, and improve arterials within the study area. All improvements contained in the No Action Alternative are included in Alternative 3, as well as in the other action alternatives.

Alternative 3 includes a BRT system operating in improved access HOV lanes on I-405, I-90, and SR 520. The proposed BRT system includes several features that distinguish it from regular bus service, including clearly identifiable priority lanes (using the existing HOV lane system in most locations), frequent and predictable schedules, uniquely identifiable vehicles, accessible transit stations, and convenient fare-collection procedures. Along 1-405, the BRT system would operate with stops every 2 to 3 miles and would use the HOV direct access ramps and in-line transit

stations to maximize speed and reliability. Other BRT operations would operate along connecting corridors (such as SR 522, SR 520, I-90 and SR 167 and would use portions of the I-405 BRT facility. The BRT system would serve the major activity centers within the study area, and would include connections to Redmond and Issaquah, and west across Lake Washington to Seattle. The connection across Lake Washington is being evaluated as part of the ongoing Trans-Lake Washington Project DEIS. Bus transit service would be increased by 100 percent compared to the King County Metro's Fall 2001 proposed 6-year transit development plan. This is a 50 percent increase in service compared to the current King County, Sound Transit and Community Transit 6-year plans. Improved arterial HOV priority for transit, additional park-and-ride capacity for 4,500 vehicles, 11 BRT stations, transit center and capacity improvements, and 9 freeway HOV direct access projects are included, as well as completion of the HOV freeway-to-freeway ramps along I-405.

This alternative would substantially increase capacity for general-purpose traffic on I-405 by adding two lanes in each direction, and improving major interchanges. These added general-purpose lanes replace many of the auxiliary and climbing lanes contained in the package of basic improvements to I-405 that are common to the other action alternatives. One lane would be added in each direction on SR 167 to the study area boundary. The core TDM strategies would be implemented. New capacity improvements on connecting arterials and freeways would be provided. Selected arterial missing links would be completed together with planned arterial improvements of local jurisdictions.

Figure C-4 shows the location of improvements contained in Alternative 3. For further details on the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives) which describes the major elements for all alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

Alternative 4: General Capacity Emphasis

This alternative places the greatest emphasis on increasing general-purpose and HOV roadway capacity, with substantially less reliance on new transit facilities and added local bus service than any of the other action alternatives. To do this, Alternative 4 would provide one additional lane in each direction on I-405, a new four-lane I-405 express roadway, and the other general-purpose and HOV roadway improvements on I-405 and connecting freeways contained in Alternative 3. The expansion of local bus transit service would be minimal compared to that proposed under the other action alternatives. However, this alternative would add a new bus base in the Green River Valley. All improvements contained in the No Action Alternative are included in Alternative 4, as well as in the other action alternatives.

Alternative 4 would expand freeway capacity by adding one additional general-purpose lane in each direction on I-405 in most segments, improving major interchanges, and constructing a new four-lane I-405 express roadway consisting of two lanes in each direction with limited access points. Completion of the HOV freeway-to-freeway ramps along I-405, and the package of basic improvements to I-405 would be implemented.

Arterial improvements would include additional expansion of major arterial routes and connections to I-405 in conjunction with the planned arterial improvements of local jurisdictions. Transit in this alternative is assumed to be a continuation of the existing local and express bus transit system with a 50 percent increase in service compared to the current King County, Sound

Transit, and Community Transit 6-Year Plans. Additional park-and-ride capacity for 4,500 vehicles would be provided along with the core TDM strategies that are common to all action alternatives.

Figure C-5 shows the location of improvements contained in Alternative 4. For further details of the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives), which describes the major elements for the alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

Preferred Alternative

The Preferred Alternative is a multimodal solution to the transportation needs in the I-405 corridor that is very similar to Alternative 3. It was identified after thorough analysis of its transportation performance and environmental effects in meeting the Purpose and Need for the I-405 Corridor Program. Based upon this analysis, the I-405 Corridor Program Citizen, Steering, and Executive committees recommended the Preferred Alternative to the co-lead agencies by consensus for the primary reasons listed below. The Preferred Alternative was adopted for consideration in the Final EIS by the I-405 Corridor Program co-lead agencies.

- Transportation performance of the Preferred Alternative was superior to the other alternatives in relation to the committees' adopted evaluation criteria;
- Environmental impacts of the Preferred Alternative within the corridor are believed to be avoidable or effectively mitigatable, and opportunities for enhancement of existing environmental conditions can be achieved through sound design practices and the proposed "basin approach" to considering key environmental features;
- Comparison of program benefits to costs for the Preferred Alternative (addressed separately from the EIS) was more desirable than for the other alternatives; and
- The mix of modal investments in the Preferred Alternative provides a balanced system of roadway, transit, and demand management strategies that are expected to provide a reasonable long-term solution to the needs for personal and freight mobility and congestion reduction within the I-405 Corridor Program study area.

The Preferred Alternative, like Alternative 3, focuses on substantial improvement of mobility options for all travel modes and provision of an effective HCT system throughout the study area at a lower cost than the physically separated, fixed-guideway system proposed in Alternatives 1 and 2. To achieve this, the Preferred Alternative proposes a new bus rapid transit (BRT) system, substantial expansion of local bus transit service, up to two added lanes in each direction on I-405, improvements to arterial capacity and connectivity within the study area, and the other general purpose and HOV roadway improvements contained in Alternative 3. All improvements contained in the No Action Alternative are included in the Preferred Alternative. Table A1 identifies the system elements contained in the Preferred Alternative and each of the other alternatives.

The Preferred Alternative includes a BRT system operating in improved-access HOV lanes on I-405, I-90, and SR 520 as described for Alternative 3. The proposed BRT system includes several features that distinguish it from regular bus service, including clearly identifiable priority lanes (using the existing HOV lane system in most locations), frequent and predictable schedules, uniquely identifiable vehicles, accessible transit stations, and convenient fare-collection procedures. Along I-405, the BRT system would operate with stops every 2 to 3 miles and would

use the HOV direct access ramps and in-line transit stations to maximize speed and reliability. Other BRT operations would operate along connecting corridors (such as SR 522, SR 520, I-90, and SR 167) and would use portions of the I-405 BRT facility. It would serve the major activity centers within the study area, and would include connections east to Redmond and Issaquah and west across Lake Washington to Seattle. The connections across Lake Washington are being evaluated as part of the ongoing Trans-Lake Washington Project EIS.

Local bus transit service within the study areas would be increased, based on demand, by up to 75 percent compared to the current King County, Sound Transit, and Community Transit 6-year plans. Improved arterial HOV priority for transit, additional park-and-ride capacity for 5,000 vehicles, 11 BRT stations, transit center and capacity improvements, 9 freeway HOV direct access projects, and completion of the HOV freeway-to-freeway ramps along I-405 are included, as well as a variety of pedestrian and bicycle connections.

The Preferred Alternative, similar to Alternative 3, would substantially increase capacity for general purpose traffic on I-405 by adding up to two lanes in each direction, along with providing collector-distributor lanes along I-405 at locations where they are warranted. These added general purpose lanes replace many of the auxiliary and climbing lanes contained in the package of basic I-405 improvements that are common to the other action alternatives. In addition, this alternative includes improvements for major interchanges and added capacity on arterials and freeways connecting to I-405.

The freeway design includes a buffer separation between the general purpose lanes and the HOV lane. This buffer, envisioned as a 4-foot painted barrier in most sections, would allow for safer and more reliable HOV and transit operations within I-405 corridor. Access to and from the HOV lane would likely be limited to the HOV direct access ramps, freeway-to-freeway connections, and clearly identifiable locations along the mainline freeway where the buffer would be open for merging traffic. The buffer design allows for future consideration of expanded managed lane operations along I-405, which could include managing up to two lanes each direction. Expansion of managed lane operations beyond the single HOV lane proposed in the Preferred Alternative would be subject to further analysis outside of the I-405 Corridor Program EIS process.

The I-405/SR 167 interchange would be expanded to include ramps for all major movements, and SR 167 would be widened by up to two lanes in each direction south from I-405 to S 180th Street in Kent, with no widening beyond that limit. The same expanded list of capacity enhancements on north-south arterials and continuity improvements to complete missing segments of major arterial connecting routes as included under Alternative 4 would be completed, together with other arterial improvements already planned by the local jurisdictions. Truck freight traffic improvements, intelligent transportation system improvements, and an expanded package of more aggressive TDM measures similar to Alternative 1 also would be implemented. This could include expanded options for managing lanes on I-405 such as regional congestion pricing or other management approaches, contingent upon adoption of a regional pricing policy by the PSRC.

Figure C-6 shows the location of improvements contained in the Preferred Alternative. For further details of the alternatives, refer to Appendix A of the I-405 Corridor Program Final EIS (Major Elements of Alternatives), which describes the major elements for the alternatives. Appendix B of this evaluation report identifies the specific transportation improvements and mobility solutions contained within each major element and alternative.

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APPENDIX B OF FINAL PRELIMINARY SECTION 4(f) EVALUATION: I-405 CORRIDOR PROGRAM EIS ALTERNATIVES PROJECT MATRIX

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APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS		Alternatives 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
1.	**TRANSPORTATION DEMAND MANAGEMENT (TDM)**								
	Various	TDM-1	TDM Package		✓	✓	✓	✓	✓
		TDM-2	Expanded TDM Package- Regional Congestion Pricing		✓				✓
2.	**TRANSIT EXPANSION WITHIN STUDY AREA**								
	Various	TS-0	Twenty percent more service than in the proposed 6-year plans for sound Transit, METRO and Community Transit	✓					
	Various	TS-1	Seventy percent more service assumed in the current 6-year plans for Sound Transit, METRO and Community Transit						✓
	Various	TS-1A	New Bus Base - Green River Valley		✓	✓	✓	✓	
	Various	TS-2	Twice the service in the proposed 6-year plans for Sound Transit, METRO and Community Transit		✓	✓	✓		
	Various	TS-3	Fifty-percent more service assumed in the current 6-year plan for Sound Transit, Metro, and Community Transit.					✓	
3.	**HIGH CAPACITY TRANSIT**								
	BUS RAPID TRANSIT STATIONS								
	Sea-Tac Airport	BRT-1	Sea-Tac Airport Transportation Center				✓		✓
	Tukwila	BRT-2	Tukwila (Commuter Rail Station)				✓		✓
	Renton	BRT-3	Renton Transit Center				✓		✓
	Renton	BRT-4	Port Quendall				✓		✓
	Newport	BRT-5	Newport Hills				✓		✓
	Bellevue	BRT-6	Bellevue Transit Center				✓		✓
	Kirkland	BRT-7	Central Kirkland (NE 85th Street)				✓		✓
	Kirkland	BRT-8	Totem Lake				✓		✓
	Bothell	BRT-9	Bothell/UW Campus				✓		✓
	Bothell	BRT-10	Canyon Park				✓		✓
	Lynnwood	BRT-11	Lynnwood Transit Center				✓		✓
	High Capacity Transit (Physically Separated, Fixed Guideway HCT)								
	Tuk. & Renton	T.HCT-1	HCT- SeaTac to Renton CBD		✓	✓			
	Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)		✓	✓			
	Ren< New & Bel	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria		✓	✓			
	Bell & Issa	T.HCT-4	HCT - Factoria To Issaquah		✓	✓			
	Bellevue	T.HCT-5	HCT Factoria to Downtown Bellevue		✓	✓			
	Bell & Red	T.HCT-6	HCT - Bellevue to Redmond		✓	✓			
	Bell & Kirk	T.HCT-7	HCT- Bellevue to Totem Lake		✓	✓			
	Kirk & King Co	T.HCT-8	HCT - Totem Lake to Bothell		✓	✓			
	Various	T.HCT-9	HCT - Bothell to Lynnwood		✓	✓			
					✓	✓			
	High Capacity Transit (Bus Rapid Transit (BRT) operating improved access HOV lanes on the existing freeway system)								
	Tuk. & Renton	T.HCT-1	HCT- SeaTac to Renton CBD				✓		
	Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)				✓		
	Ren< New & Bel	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria				✓		
	Bell & Issa	T.HCT-4	HCT - Factoria To Issaquah				✓		
	Bellevue	T.HCT-5	HCT Factoria to Downtown Bellevue				✓		
	Bell & Red	T.HCT-6	HCT - Bellevue to Redmond				✓		
	Bell & Kirk	T.HCT-7	HCT- Bellevue to Totem Lake				✓		
	Kirk & King Co	T.HCT-8	HCT - Totem Lake to Bothell				✓		
	Various	T.HCT-9	HCT - Bothell to Lynnwood				✓		
							✓		
	High Capacity Transit Stations								
	Sea-Tac	HCT.TS-1	Sea-Tac (Outside of Study Area)						
	Tukwila	HCT.TS-2	Southcenter		✓	✓			
	Tukwila & Renton	HCT.TS-3	Tukwila (Longacres)		✓	✓			
	Renton	HCT.TS-4	Downtown Renton		✓	✓			
	Renton	HCT.TS-5	North Renton		✓	✓			

∗ ***Evaluated within another project.***

✳ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Renton	HCT.TS-6	Port Quendall		✓	✓			
		Bellevue	HCT.TS-7	Factoria		✓	✓			
		Bellevue	HCT.TS-8	Bellevue Transit Center		✓	✓			
		Bellevue	HCT.TS-9	Bellevue Library		✓	✓			
		Bell & Kirk	HCT.TS-10	SR 520/Northup Way		✓	✓			
		Kirkland	HCT.TS-11	Downtown Kirkland (NE 85th Street)		✓	✓			
		Kirkland	HCT.TS-12	Totem Lake		✓	✓			
		Woodinville	HCT.TS-13	NE 145th Street		✓	✓			
		Woodinville	HCT.TS-14	Woodinville		✓	✓			
		Bothell	HCT.TS-15	NE 195th		✓	✓			
		Bothell	HCT.TS-16	Canyon Park		✓	✓			
		Sno County	HCT.TS-17	164th Street AW (AshWay)		✓	✓			
		Bellevue	HCT.TS-18	Eastgate		✓	✓			
		King County	HCT.TS-19	Lakemont		✓	✓			
		Issaquah	HCT.TS-20	Issaquah 9Outside of Study area)						
		Bellevue	HCT.TS-21	132nd Avenue NE		✓	✓			
		Bellevue	HCT.TS-22	148th Avenue NE		✓	✓			
		Redmond	HCT.TS-23	Overlake (NE 40th Street)		✓	✓			
		Redmond	HCT.TS-24	Redmond Town Center		✓	✓			
		Redmond	HCT.TS-25	Bear Creek		✓	✓			
		Mercer Island	HCT.TS-26	Mercer Island		✓	✓			
4.		**ADD ARTERIAL HOV AND TRANSIT PRIORITY**								
		Bellevue	R.HOV-36	Coal Creek Pkwy from I-405 to Forest Drive		✓	✓	✓		
		Bellevue	R.HOV-36	Coal Creek Pkwy from I-405 to Factoria Blvd						✓
		Bellevue	R.HOV-37	NE 8th Street from I-405 to 120th Ave NE		✓	✓	✓		✓
		Kirk, Redmond	R.HOV-38	NE 85th St from Kirkland Way to 148th Ave NE Vicinity		✓	✓	✓		✓
		Kirkland	R.HOV-39	NE 116th from 115th Ave NE to 124th Ave NE		✓	✓	✓		✓
		Kirkland	R.HOV-40	NE 124th from 113th Ave NE to 132 Ave NE		✓	✓	✓		
		Kirkland	R.HOV-40	NE 124th from 113th Ave NE to 124th Ave NE						✓
		Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th St to SR 524		✓	✓	✓		
		Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th through I-405 interchange						✓
		Renton	R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment		✓	✓	✓		✓
		Renton	R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave to SR 167		✓	✓	✓		✓
		Redmond	R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct SB HOV lane		✓	✓	✓		✓
		Renton, King Co	R.HOV-48	SW 43 St from SR 167 to 140 Ave SE		✓	✓	✓		✓
		Renton	R.HOV-49	Logan Ave N/N 6 St from S 3 St to Park Dr, Transit Signal Priority		✓	✓	✓		✓
		Renton	R.HOV-51	Park Dr/Sunset Blvd from Garden Ave to Duvall Ave NE, Que Bypass'		✓	✓	✓		✓
		Kenmore	R.HOV-53 & R.PA-11	68 Ave NE (Simonds Rd to SR 522) - Construct NB HOV lane		✓	✓	✓		
		Redmond	R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)		✓	✓	✓		
		Kirkland, Bellevue	R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes		✓	✓	✓		✓
		Kirkland	R.HOV-57	NE 68 St/NE 72 Pl (I-405 Vicinity) Que Bypass'		✓	✓	✓		✓
		Bellevue	R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity		✓	✓	✓		✓
5.		**HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS**								
		Bellevue	HOV-01	I-405 at NE 4th/6th/8th (Bellevue) / Construct new HOV direct access at NE 6th, Improve arterial capacity at NE 4th/8th interchanges	✓	✓	✓	✓	✓	✓
		Bellevue	HOV-02	I-90 (Eastgate) / New I-90 HOV direct access connection to P&R	✓	✓	✓	✓	✓	✓
		WSDOT	HOV-14	I-405 (I-5 Swamp Creek to SR 527)/Construct NB and SB HOV lanes total 6 lanes	✓	✓	✓	✓	✓	✓
		ST	HOV-102, R.HOV-58 & R.PA-1	Woodinville Arterial Enhancements/HOV arterial enhancements	✓	✓	✓	✓	✓	✓
		Renton	R.HOV-32	Between Sunset and SR-900 /Park Ave interchange in Renton	✓	✓	✓	✓	✓	✓
		Bothell	R.HOV-62	Vicinity of NE 195th (Bothell Campus)	✓	✓	✓	✓	✓	✓
		Bothell	R.HOV-63	Vicinity of SR 527	✓	✓	✓	✓	✓	✓
		ST	R.HOV-66	I-405 at NE 128th St/HOV Direct Access Improvements	✓	✓	✓	✓	✓	✓
		Tukwila	R.HOV-25	SR 5 I/C @ Tukwila Fwy to Fwy HOV ramps,			✓	✓		✓

∗ ***Evaluated within another project.***

∗ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS		Alternatives: 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
	Renton	R.HOV-26	SR 167 I/C Fwy to Fwy HOV ramps,			✓	✓	✓	✓
	Bellevue	R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps,			✓	✓	✓	✓
	Bellevue	R.HOV-28	SR 520 Fwy to Fwy HOV ramps,			✓	✓	✓	✓
	Bothell	R.HOV-29	SR 522 Fwy to Fwy HOV Ramps			✓	✓	✓	✓
	Sno. Co.	R.HOV-30	SR 5 I/C @ Swamp Creek Fwy HOV ramps.			✓	✓	✓	✓
	Newcastle	R.HOV-65	112th St SE (In-Line Station)			✓			✓
	SR 181	R.HOV-102	SR 181 (Commuter Rail Access)						✓
	ST	HOV-101	I-405 @ Lind/HOV direct access improvements.				✓		
	Renton	R.HOV-33 & R.IC-12	NE 44th I/C - HOV Direct Access and Arterial Improvements (assumes Port Quendall)(Remove from NA))		✓	✓	✓	✓	✓
	Kirkland	R.HOV-61	NE 85th				✓		✓
6.	**ADD PARK & RIDE CAPACITY TO MEET DEMAND**								
	Renton	T.PR-3	Renton Highlands	✓	✓	✓	✓	✓	
	Tukwila & Ren	T.PR-6	Tukwila Commuter Rail (Longacres)	✓	✓	✓	✓	✓	
	K C	T.PR-8	SR 169 and 140th Place SE		✓	✓	✓		
	K C	T.PR-9	Petrovitsky Rd and 157th Ave SE		✓	✓	✓		
	K C	T.PR-10	140th Ave SE and SE 192nd		✓	✓	✓		
	K C	T.PR-11	SR 515 and SE 208th		✓	✓	✓		
	Kent & Renton	T.PR-12	SR 167 and SW 43rd		✓	✓	✓		
	Kent & Renton	T.PR-13	SR 167 and 84th Ave		✓	✓	✓		
	Redmond	T.PR-17	Willows Rd @ NE 100th		✓	✓	✓		
	Redmond	T.PR-18	SR 202 @ NE 100th		✓	✓	✓		
	Bell & Kirk	T.PR-20	South Kirkland	✓	✓	✓	✓	✓	
	Redmond	T.PR-21	Overlake	✓	✓	✓	✓	✓	
	Bellevue	T.PR-22	South Bellevue	✓	✓	✓	✓	✓	
	Bellevue	T.PR-23	Newport (112th Ave. SE)	✓	✓	✓	✓	✓	
	KC	T.PR-24	NE 160th/Brickyard Rd	✓	✓	✓	✓	✓	
	Bothell	T.PR-25	Canyon Park (SR 405 and SR 527)	✓	✓	✓	✓	✓	
	KC	T.PR-26	SR 202 @ NE 145th		✓	✓	✓		
	Tukwila	T.PR-30	Tukwila	✓	✓	✓	✓	✓	
	Kirkland	T.PR-31	Houghton	✓	✓	✓	✓	✓	
	Kirkland	T.PR-32	Kingsgate	✓	✓	✓	✓	✓	
	Medina	T.PR-33	Evergreen Point	✓	✓	✓	✓	✓	
	Bellevue	T.PR-34	Wilburton	✓	✓	✓	✓	✓	
	King County	T.PR-35	Lakemont	✓	✓	✓	✓	✓	
	Redmond	T.PR-36	Rendmond	✓	✓	✓	✓	✓	
	Redmond	T.PR-37	Bear Creek	✓	✓	✓	✓	✓	
	Bothell	T.PR-38	Bothell	✓	✓	✓	✓	✓	
	Kenmore	T.PR-39	Northshore	✓	✓	✓	✓	✓	
	Kenmore	T.PR-40	Kenmore	✓	✓	✓	✓	✓	
	Woodinville	T.PR-41	Woodinville	✓	✓	✓	✓	✓	
	Mercer Island	T.PR-42	Mercer Island	✓	✓	✓	✓	✓	
	Bellevue	T.PR-43	Eastgate	✓	✓	✓	✓	✓	
	SE Snohomish	T.PR-44	Southeast Snohomish County (inside Study Area) (+800 spaces)						✓
	Bothell, Kenmore, Woodinville	T.PR-45	Bothell, Kenmore, Woodinville & vicinity (+300 spaces)						✓
	Kirkland & vicinity	T.PR-46	Kirkland & vicinity (+300 spaces)						✓
	Redmond & vicinity	T.PR-47	Redmond & vicinity (+500 spaces)						✓
	Mercer Island	T.PR-48	Mercer Island (+300 spaces)						✓
	Bellevue & vicinity	T.PR-49	Bellevue & vicinity (+1200 spaces)						✓
	Renton & vicinity	T.PR-50	Renton & vicinity (+200 spaces)						✓
	Tukwila & vicinity	T.PR-51	Tukwila & vicinity (+700 spaces)						✓
	Kent & vicinity	T.PR-52	Kent & vicinity (inside study area) (=700 spaces)						✓

Placeholder- 4500 new spaces analyzed and costed

Total of 5,000 spaces- to be verified by transit forecassts

∗ ***Evaluated within another project.***

∗ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS			Alternatives 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
7.	**ADD TRANSIT CENTER CAPACITY TO MEET DEMAND**									
	Renton		T.TC-6	Downtown Renton	✓	✓	✓	✓	✓	✓
	Bellevue		T.TC-8	Downtown Bellevue	✓	✓	✓	✓	✓	✓
	Redmond		T.TC-9	Overlake	✓	✓	✓	✓	✓	✓
	Kirkland		T.TC-12	Downtown Kirkland	✓	✓	✓	✓	✓	✓
	Kirkland		T.TC-14	Totem Lake	✓	✓	✓	✓	✓	✓
	Lynnwood		T.TC-18	Lynnwood						✓
	Woodinville		T.TC-19	Downtown Woodinville						✓
	Newcastle		T.TC-20	Downtown Newcastle						✓
	Tukwila		T.TC-21	Tukwila						✓
	Bothell		T.TC-22	Canyon Park						✓
8.	**BASIC I-405 IMPROVEMENTS**									
	Renton		R.BI-1 & R.FR-10	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167		✓	✓	✓	✓	✓
	Kirkland		R.BI-2	Continue NB climbing Lane from NE 70th to NE 85th and continue as auxiliary Lane to NE 116th		✓	✓		✓	
	Kirkland		R.BI-3	SB auxiliary Lane NE 124th to NE 85th		✓	✓		✓	
	Bellevue		R.BI-4	I-90 / Coal Creek Interchange		✓	✓	✓	✓	✓
	Both,King Co,Kirk		R.BI-5	SB SR 522 to 124th continue climbing lane as an auxiliary lane (SB SR 522 to 160th climbing lane)		✓	✓		✓	✓
	Bothell		R.BI-6	NB auxiliary lane SR 522 to SR 527		✓	✓		✓	
	Renton		R.BI-7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th (OPTION)		✓	✓		✓	✓
	Bellevue		R.BI-8	I-90 to Bellevue SB HOV direct connection to I-90 west		✓	✓		✓	
	Bellevue		R.BI-9	NB auxiliary lane I-90 to NE 8th		✓	✓		✓	
	Bellevue		R.BI-10	Increase SR 405 to Eastbound SR 520 Ramp capacity		✓	✓		✓	✓ *
	Renton		R.BI-14	NB Auxilliary Lane I-5 to SR 167		✓	✓		✓	
	Various		R.FR.24	Improve interchange geometrics at all major truck routes (WB-20 Design Criteria) (No cost included)		✓	✓	✓	✓	✓
	Committed Freeway Projects									
	WSDOT		R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.	✓	✓	✓	✓	✓	✓
9.	**ONE ADDITIONAL GP OR AUXILIARY LANE EACH DIRECTION ON I-405**									
	Tukwila,Renton		R.TC-18	One additional GP lanes in each direction - SR 5 Tukwila to SR 167			✓		✓	
	Renton		R.TC-10	One additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C			✓		✓	
	Renton, Nwcas,Bel		R.TC-11	One additional GP lanes in each direction - SR 900/North Renton I/C to SR 90			✓		✓	
	Bellevue		R.TC-12	One additional GP lanes in each direction - SR 90 To SR 520			✓		✓	
	Bellevue,Kirkland		R.TC-13	One additional GP lanes in each direction - SR 520 to NE 70th			✓		✓	
	Kirkland		R.TC-14	One additional GP lanes in each direction - NE 70th to NE 124th			✓		✓	
	Kirk,K C,Both		R.TC-15	One additional GP lanes in each direction - NE 124th SR 522			✓		✓	
	Bothell,Sno Co		R.TC-16	One additional GP lanes in each direction - SR 522 to SR 527			✓		✓	
	Sno Co		R.TC-17	One additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek			✓		✓	
10.	**ADD 2 GENERAL PURPOSE LANES EACH DIRECTION ON I-405**									
	Tukwila,Renton		R.TC-1	Two additional GP lanes in each direction - SR 5 Tukwila to SR 167				✓		✓
	Renton		R.TC-2	Two additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C				✓		✓
	Renton, Nwcas,Bel		R.TC-3	Two additional GP lanes in each direction - SR 900/North Renton I/C to SR 90				✓		✓
	Bellevue		R.TC-4	Two additional GP lanes in each direction - SR 90 To SR 520				✓		✓
	Bellevue,Kirkland		R.TC-5	Two additional GP lanes in each direction - SR 520 to NE 70th				✓		
	Bellevue,Kirkland		R.TC-5	Two additional GP lanes SB, One additional GP lane NB - SR 520 to NE 70th						✓
	Kirkland		R.TC-6	Two additional GP lanes in each direction - NE 70th to NE 124th				✓		✓
	Kirk,K C,Both		R.TC-7	Two additional GP lanes in each direction - NE 124th SR 522				✓		✓
	Bothell,Sno Co		R.TC-8	Two additional GP lanes in each direction - SR 522 to SR 527				✓		✓
	Sno Co		R.TC-9	Two additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek				✓		✓
	Various		R.ML-1	Managed Lane Buffer Option (4 feet) - I-5 Tukwila to I-5 Swamp Creek						✓
11.	**PROVIDE COLLECTOR DISTRIBUTOR LANES ON I-405**									
	Renton		R.CD-1	SR-167, SR-169, Sunset and SR 900/North Renton; Note: Impacts and costs included as part				✓ *		✓ *

* ***Evaluated within another project.***

* ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS		Alternatives 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
	Bellevue	R.CD-2	Coal Creek, SR 90, SE 8th, NE 4th, NE 8th and SR 520; of Element 10.				✓ ✻		✓ ✻
	Kirkland	R.CD-3	NE 70th and NE 85th;				✓ ✻		✓ ✻
	Kirkland	R.CD-4	NE 116th and NE 132nd;				✓ ✻		✓ ✻
	Bothell, King Co	R.CD-5	NE 160th, SR-522 and SR 527				✓ ✻		✓ ✻
	Newcastle	R.CD-6 & R.BI-7	3rd Northbound Lane - NE 30th St to NE 44th St						✓
	Bellevue	R.CD-7 & R.BI-7	3rd Northbound and Southbound Lanes - NE 44th ST to Coal Creek I/C						✓
12.	**EXPRESS LANES - 2 LANES EACH DIRECTION ON I-405**								
	Tukwila,Renton	R.TC-20 + R.TC-29a	Add Express Lanes - SR 5 Tukwila to SR 167					✓	
	Renton	R.TC-21	Add Express Lanes - SR 167 to SR 900/North Renton I/C					✓	
	Renton, Nwcas,Bel	R.TC-22 + R.TC-33	Add Express Lanes - SR 900/North Renton I/C to SR 90					✓	
	Bellevue	R.TC-23	Add Express Lanes - SR 90 To SR 520					✓	
	Bellevue,Kirkland	R.TC-24 + R.TC-32	Add Express Lanes - SR 520 to NE 70th					✓	
	Kirkland	R.TC-25	Add Express Lanes - NE 70th to NE 124th					✓	
	Kirk,K C,Both	R.TC-26 + R.TC-31	Add Express Lanes - NE 124th SR 522					✓	
	Bothell,Sno Co	R.TC-27	Add Express Lanes - SR 522 to SR 527					✓	
	Sno Co	R.TC-29 + R.TC-30	Add Express Lanes - SR 527 to SR 5 Swamp Creek					✓	
	Renton	R.TC-28	Add Express Lanes - SR 167 north of 180th up to I-405					✓	
	EXPRESS LANES - ACCESS LOCATIONS								
	Tukwila,Renton	R.TC-29a + R.TC-20	Southern end to Express Lanes - Between SR 181 and SR 167					✓ ✻	
	Bothell	R.TC-30 + R.TC-29	Northern end to Express Lanes - Between SR 527 and I-5					✓ ✻	
	Renton, Nwcas,Bel	R.TC-31 + R.TC-26	Slip Ramp - South of NE 160th Street					✓ ✻	
	Bellevue	R.TC-32 + R.TC-24	Slip Ramp - South of NE 70th Street					✓ ✻	
	Bellevue,Kirkland	R.TC-33 + R.TC-22	Slip Ramp - South of Coal Creek Parkway					✓ ✻	
	Kirkland	R.TC-34	Interchange access location - SR 167					✓	
13.	**WIDEN SR 167 BY 1 LANE EACH DIRECTION TO KENT**								
	Renton, Kent	R.CF-8	SR 167 I-405 to Study Area Boundary (2 lanes to 180th only; No added lanes south of 180th)			✓	✓	✓	✓
14.	**SR 167/ I-405 INTERCHANGE IMPROVEMENTS**								
	Renton	R.FR-10 & R.BI-1	SR 167/I-405 Interchange Add Directional Ramps for major movements			✓ ✻	✓ ✻	✓ ✻	✓ ✻
15.	**IMPROVE CONNECTING FREEWAY CAPACITY TO I-405**								
	Tuikwila	R.CF-1	SR 518 I-405 to SR 99/Airport Access			✓	✓	✓	✓
	Bellevue	R.CF-3	I-90 South Bellevue to Eastgate			✓	✓	✓	✓
	Bellevue	R.CF-4	SR 520 Bellevue Way to 148th (to 124th, tie to TransLake)					✓	✓ ✻
	Bothell, Woodin	R.CF-5	SR 522 Bothell to NE 195th			✓	✓	✓	✓
	Sno Co, Lynnwood	R.CF-6	SR 525 I-405 to SR 99			✓	✓	✓	✓
	Tukwila	R.CF-9	I-5 at Tukwila			✓	✓	✓	✓
	Lynnwood	R.CF-10	I-5 at Swamp Creek - 44th to 155th			✓	✓	✓	✓
16.	**IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS** (Note: ID numbers are same as ETP ID's)								
	Bothell, Snohomish C	R.AC-21	120th NE/39th SE - NE 95th to Maltby Rd - 4/5 lanes including new connection	✓	✓	✓	✓	✓	✓
	Bellevue	R-08	NE 29th Pl (148th Ave NE to NE 24th St)/Construct new 2-lane road	✓	✓	✓	✓	✓	✓
	Snohomish Co.	R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	✓	✓	✓	✓	✓	✓
	Kirkland	R-21	NE 120 St (Slater Ave to 124 Ave NE)--- Construct new 3-lane roadway with ped/bike facilities	✓			✓		✓
	Redmond/ WSDOT	R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/ped facilities	✓	✓	✓	✓	✓	✓
	Redmond	R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	✓	✓	✓	✓	✓	✓
	Redmond	R-28	West Lake Sammamish Parkway (Leary Way to Bel-Red Rd)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
	Renton	R-36	Oakesdale Ave SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	✓	✓	✓	✓	✓	✓
	KCDOT	R-39 & R.AC-2	140 Ave SE (SR 169 to SE 208 St)--- Widen to 5 lanes SR 169 to SE 196 St, widen for turn channels on SE 196. Combines 2 King County CIP projects. A major North-South arterial which serves the Soos Creek Plateau and Fairwood.	✓	✓	✓	✓	✓	✓

✻ ***Evaluated within another project.***

✻ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS		Alternatives: 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
	KCDOT	R-40 & R.IC-24	Juanita-Woodinville Way (NE 145 St to 112th Ave NE) Widen to 5 lanes + CGS, walkway/pathway	✓	✓	✓	✓	✓	✓
	KCDOT	R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	✓	✓	✓	✓	✓	✓
	Woodinville	R-51	Woodinville-Snohomish Rd/140 Ave NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
	Bellevue	R-101	150th Ave SE---Widen to 7 lanes from SE 36th to SE 38th; add turn lanes	✓	✓	✓	✓	✓	✓
	Redmond	R-111 & R.AC-15	Willows Rd Corridor Improvements-- Channelization of Willows Rd/Redmond Way intersection and widening of Willows Rd from NE 116th to NE 124th	✓	✓	✓	✓	✓	✓
	Snohomish Co.	R-117	39th Ave SE Realignment at SR 524 and York Rd--- Construct 4-way intersection to replace 2 offset intersections	✓	✓	✓	✓	✓	✓
	Planned Arterial Projects								
	Bellevue	R.PA-2	148 Ave SE (SE 24 St to SE 28 St) New SB lane from SE 24 St to the WB I-90 on-ramp (ETP 203)			✓	✓	✓	✓
	Bothell	R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)			✓	✓	✓	✓
	Bothell	R.PA-4	SR 524 (SR 527 to Bothell City Limit)--- Widen to 5 lanes + CGS, bike facilities (class III) (ETP R-11)			✓	✓	✓	✓
	KCDOT	R.PA-5	SE 212 Way/SE 208 St (SR 167 to Benson Rd/SR 515)--- Widen to 6 lanes + bike facilities, Transit/HOV preferential treatment, turn channels. (ETP R-46)			✓	✓	✓	✓
	KCDOT	R.PA-8	NE 124/128 St (SR 202 to Avondale Rd)--- Widen to 4/5 lanes including bike & equestrian facilities (ETP 164)			✓	✓	✓	✓
	KCDOT	R.PA-10	NE 132 St Extension (132 Ave NE to Willows Rd Ext.)---- Construct new 3 lane arterial with CGS, bike lanes (ETP 61)			✓	✓	✓	✓
	Kenmore/KCDOT	R.PA-11 & R.HOV-53	68 Ave NE (Simonds Rd to SR 522)--- Construct NB HOV lane total of 5/6 lanes (ETP 22)			✓ ✳	✓ ✳	✓	
	Kirkland	R.PA-12	124 Ave NE (NE 85 St to Slater Rd NE)--- Widen to 3 lanes (s. of NE 116th St, 5 lanes n. of NE 116th St with ped/bike facilities (ETP R-23)			✓	✓	✓	✓
	Kirkland	R.PA-13 & R.IC-26	NE 132 St (100 Ave NE to 116 Way NE)--- Widen to 3 lanes + CGS, Bike lane (ETP R-124)			✓	✓	✓	✓
	Kirkland	R.PA-14	NE 100 St (117 Ave NE to Slater Ave) --- Construct bike/pedestrian/emergency Vehicle overpass across I-405 (ETP 309)	✓		✓	✓	✓	✓
	Newcastle	R.PA-15	Coal Creek Pkwy (SE 72 St to Renton City Limits)--- Widen to 4/5 lanes + CGS, bike lanes, traffic signals (ETP R-24)			✓	✓	✓	✓
	Redmond	R.PA-16	Redmond 148th Ave NE Corridor - 3 projects--- Turn lane and channelization improvements along corridor -- BROTS;			✓	✓	✓	✓
	Redmond	R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ped and CSG; widen Bear Creek Pkwy (ETP R-110)			✓	✓	✓	✓
	Redmond	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)			✓	✓	✓	✓
	Renton	R.PA-19	Duvall Ave NE (NE 4 St to NE 25 Court -City Limits)--- Widen to 5 lanes + CGS, bikeway (ETP R-31)			✓	✓	✓	✓
	Renton	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)			✓	✓	✓	✓
	Renton	R.PA-21	Rainier Ave / Grady Way (intersection)-- Grade separation			✓	✓	✓	✓
	Renton	R.PA-22	SW Grady Way (SR 167 to SR 515)--- Rechannelize and modify signals for a continuous eastbound lane (ETP R-37)			✓	✓	✓	✓
	Renton	R.PA-23	SR 167 at East Valley Road--- New southbound off-ramp and signalization at East Valley Road (ETP 255)			✓	✓	✓	✓
	Renton/ KCDOT	R.PA-24	Soos Creek Regional Links--- Placeholder for Trans-Valley Study (ETP R-115)			✓	✓	✓	✓
	Woodinville	R.PA-25 & R.AC-30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)			✓	✓	✓	✓
	Woodinville	R.PA-26	SR202 Corridor Package (SR202/148th Ave & SR202/127th Place)--- Intersection improvements (ETP R-54)			✓	✓	✓	✓
	WSDOT	R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)			✓	✓	✓	✓
	WSDOT	R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)			✓	✓	✓	✓
17.	**EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS**								
	King Co	R.AC-2 & R-39	138th Ave - Petrovitsky Rd to SR 169- Add 1 lane. See R-39						
	King Co, Renton	R.AC-3	138th Ave SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St				✓	✓	✓
	Redmond	R.AC-15 & R-111	Willows Rd- NE 90th St to NE 116th St- Add 1 lane each direction					✓ ✳	✓
	King Co,Woodin	R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes				✓	✓	✓
	Woodinville	R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes				✓ ✳	✓ ✳	✓ ✳
	Red,K C,Woodin	R.AC-18 & R.PA-28	SR 202 - NE 90th to NE 145th					✓ ✳	✓
	Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction					✓	
	Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to 228th - Widen by 1 lane each direction						✓
	Both,Woodin	R.AC-30 & R.PA-25	SR 202 connection across SR 522 to 120th				✓ ✳	✓ ✳	✓ ✳
	Tukwila	R.AC-35	SR 181- S 180th to S 200th					✓	
	Tukwila	R.AC-35	SR 181- Strander to S 200th						✓
	Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.					✓ ✳	
	Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Grady Way						✓
	Tukwila	R.AC-37	Southcenter Pky - Tukwila Pky to Strander Blvd					✓	✓

✳ ***Evaluated within another project.***

✳ ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

Element #	Jurisdiction	ACTIONS		Alternatives 5 No Action	1 HCT/TDM	2 Mixed Mode with HCT/Transit Emphasis	3 Mixed Mode	4 General Capacity	Preferred
18.	**UPGRADE ARTERIAL CONNECTIONS TO I-405**								
	Tukwila	R.IC-3 & R.AC-36	SR 181 West Valley Highway/ Interurban See R.AC-36			✓	✓	✓	✓
	Renton	R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43			✓ *	✓ *	✓	✓ *
	Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 124th			✓	✓	✓	
	Kirkland, Redmond	R.IC-8	NE 85th St-Kirkland Way to 120th						✓
	Kirkland	R.IC-9	NE 116th- 114th Ave NE to 124th Ave NE			✓		✓	✓
	Kirkland	R.IC-10	NE 124th- 113th Ave NE to 124th Ave NE (spot intersection improvements)			✓	✓	✓	
	Kirkland	R.IC-10	SR 527- 228th through I-405 interchanges						✓
	Bothell	R.IC-11 & R.HOV-41	SR 527- 228th to SR 524			✓	✓	✓	✓
	Kirk,King Co	R.IC-14	New half diamond interchange to/from north at NE 132nd St				✓	✓	✓
	Bothell	R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)				✓	✓	✓
	Bothell	R.IC-24 & R-40	NE 160th Street-112th Ave to Juanita/Woodinville Wy See R-40			✓ *	✓ *	✓ *	
	Kirkland	R.IC-26 & R.PA-13	NE 132nd - 113th to 124th Ave NE				✓*	✓ *	✓ *
19	**CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS**								
	I-405 Crossings								
	Bellevue	NM. CR-1	Lk Washington Blvd/112th Ave. SE - crossing I-405 from 106th Ave. SE to 112th Place SE - Add sidewalks		✓	✓	✓	✓	✓
	Bothell	NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add ped/bike facility		✓	✓	✓	✓	✓
	Sno. County	NM. CR-3	SR-524 (Filbert Road) - crossing I-405 from North Rd to Locust Way - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
	Sno. County	NM. CR-4	Damson Road - crossing I-405 from 192nd St SW to Logan Rd - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
	Renton	NM. CR-5	NE Park Drive - crossing I-405 from SR-900/Sunset Blvd to Lake Wash Blvd - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
	Renton	NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
	Bothell	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add ped/bike overcrossing of I-405		✓	✓	✓	✓	✓
	Bothell	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility		✓	✓	✓	✓	✓
	Pedestrian/Bicycle Connections								
	Bellevue,Kirkland	NM.P&B-2	BNSF Right of Way - SE 8th to Totem Lake - Add ped/bike facility.		✓	✓	✓		✓
	Bellevue	NM.P&B-4	Lk Washington Blvd - SR 405 to SE 60th - Add ped/bike facilities		✓	✓	✓		✓
	Bothell	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.		✓	✓	✓		✓
	Bel,Nwcas,Ren	NM.P&B-6	Lk Washington Blvd/112th - SE 60th to May Creek I/C - Add ped/bike facility		✓	✓	✓		✓
	Renton	NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave - Add ped/bike facilities		✓	✓	✓		✓
	Renton	NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities		✓	✓	✓		✓
	Renton	NM.P&B-16	Cedar-Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add ped/bike facilities		✓	✓	✓		✓
	Renton	NM.P&B-17	I-405/SR-167 trail connection - Lind Ave. SE to Talbot Rd S. - Add trail connection		✓	✓	✓		✓
	Renton/Tukwila	NM.P&B-18	I-405/1-5 - via or around I-405/I-5 interchange - Add ped/bike facilities		✓	✓	✓	✓	✓
	Tukwila	NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes		✓	✓	✓	✓	✓
20.	**I-405 CORRIDOR INTELLIGENT TRANSPORTATION SYSTEM ENHANCEMENTS**								
	Various	ITS-1	Add Camera Coverage to decrease TMC blind spots		✓	✓	✓	✓	✓
	Various	ITS-2	Complete Ramp Metering		✓	✓	✓	✓	✓
	Various	ITS-4	Dual Lane Ramp Metering		✓	✓	✓	✓	✓
	Various	ITS-5	Increased Incident Response		✓	✓	✓	✓	✓
	Various	ITS-6	Traffic adaptive control on arterials		✓	✓	✓	✓	✓
	Various	ITS-7	TIS before all major decision points		✓	✓	✓	✓	✓
	Various	ITS-8	WSDOT support of in-vehicle traffic information		✓	✓	✓	✓	✓
	Various	ITS-9	Arterial camera coverage		✓	✓	✓	✓	✓
21.	**I-405 CORRIDOR FREIGHT ENHANCEMENTS**								
	Renton	R.FR-10 & R.BI-1	Modify SR 167 Interchange for East to South Freight movements(modify for "multiple" movements- don't limit to "east to south")		✓ *	✓ *	✓ *	✓ *	✓ *
	Various	R.FR-11	Improve truck flow with ITS		✓	✓	✓	✓	✓
	Various	R.FR-23	Remote area for overnight freight parking and staging for early morning deliveries		✓	✓	✓	✓	✓
	Various	R.FR-26	Full depth shoulders for truck usage on key freeways and arterials)		✓	✓	✓	✓	✓

* ***Evaluated within another project.***
* ***Project redefined for the Preferred Alternative***

APPENDIX B

I-405 Corridor Program EIS Alternatives Project Matrix

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					No Action	HCT/TDM	Mixed Mode with HCT/Transit Emphasis	Mixed Mode	General Capacity	Preferred
		Various	R.FR-27	Traveler Information System (TIS) on SR 167 for I-405 "options"		✓	✓	✓	✓	✓
		Various	R.FR-28	TIS on I-5 for SR 18/I-90; and 164th to I-405; and South 200th to I-405		✓	✓	✓	✓	✓
		Various	R.FR-29	Centralized fax/radio for real time congestion reporting for dispatchers and truck drivers. Leverage WSDOT video linkages (e.g., a "T-911" number).		✓	✓	✓	✓	✓
		Various	R.FR-30	Hours of operation and service periods optimized—"JIT" redefined for applicable service sectors (e.g. restaurants)		✓	✓	✓	✓	✓
		Various	R.FR-32	Light cargo delivery using Sound Transit service		✓	✓	✓	✓	✓

∗ ***Evaluated within another project.***
∗ ***Project redefined for the Preferred Alternative***

APPENDIX C OF FINAL PRELIMINARY SECTION 4(f) EVALUATION: FIGURES OF ALTERNATIVES

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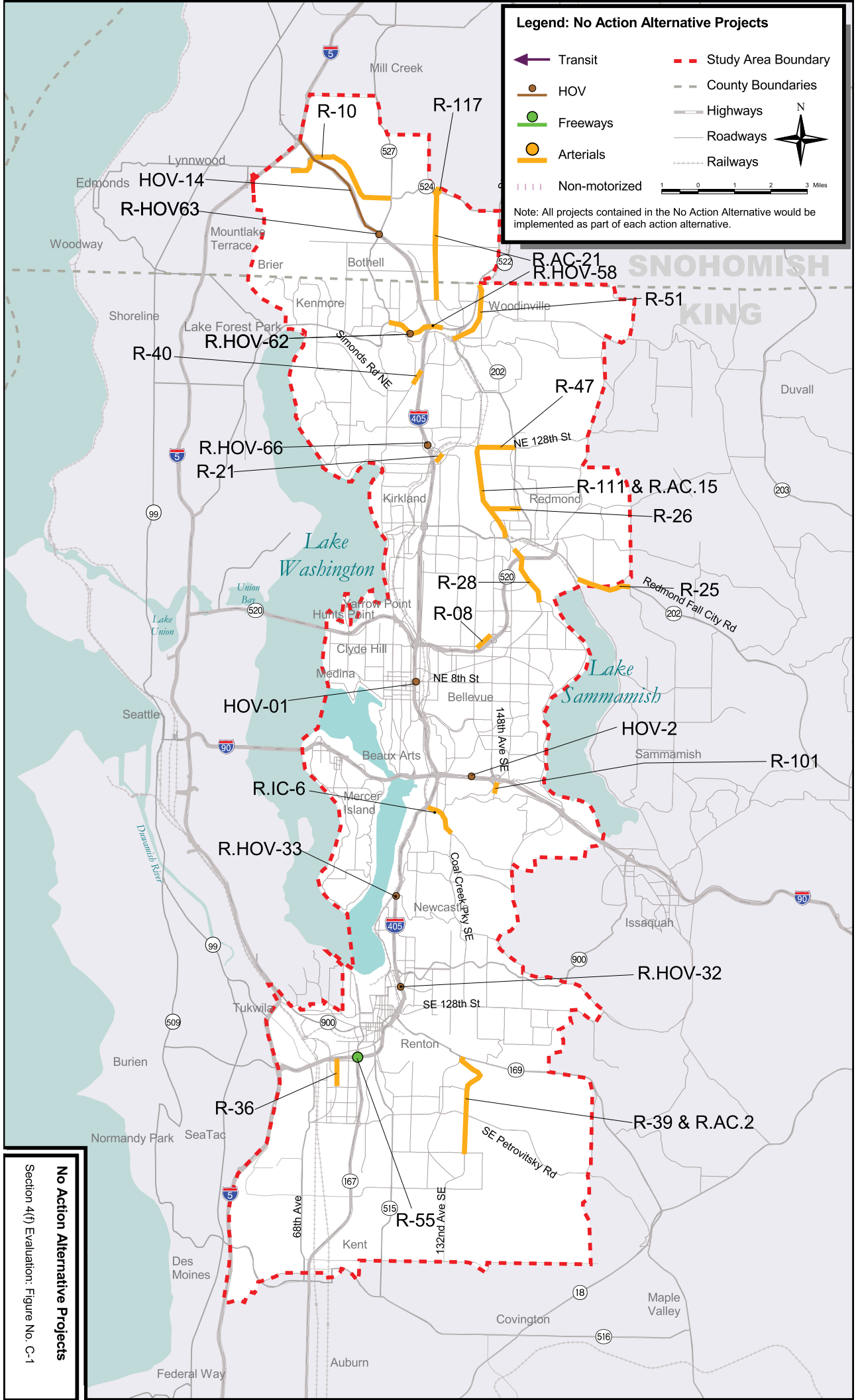
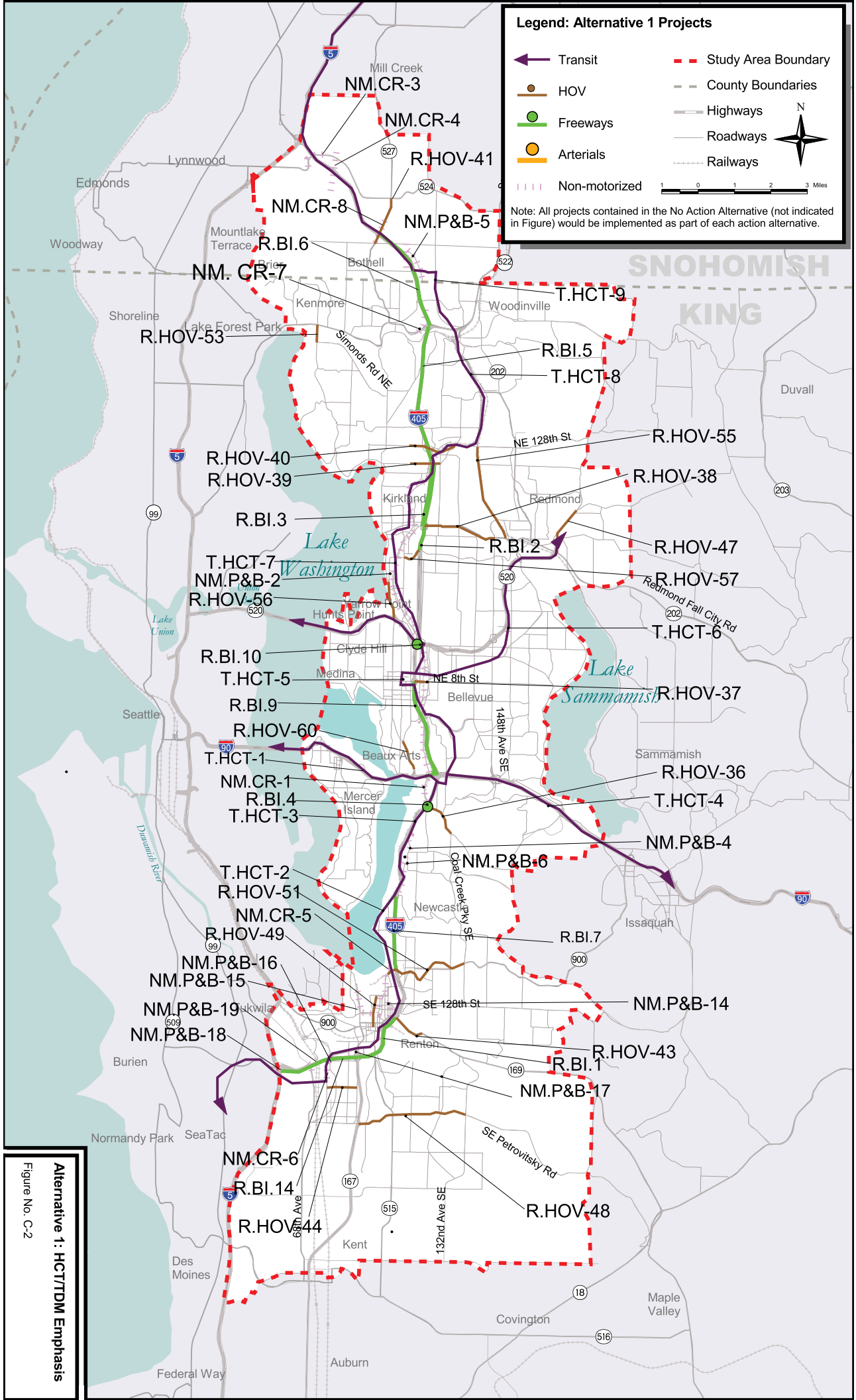


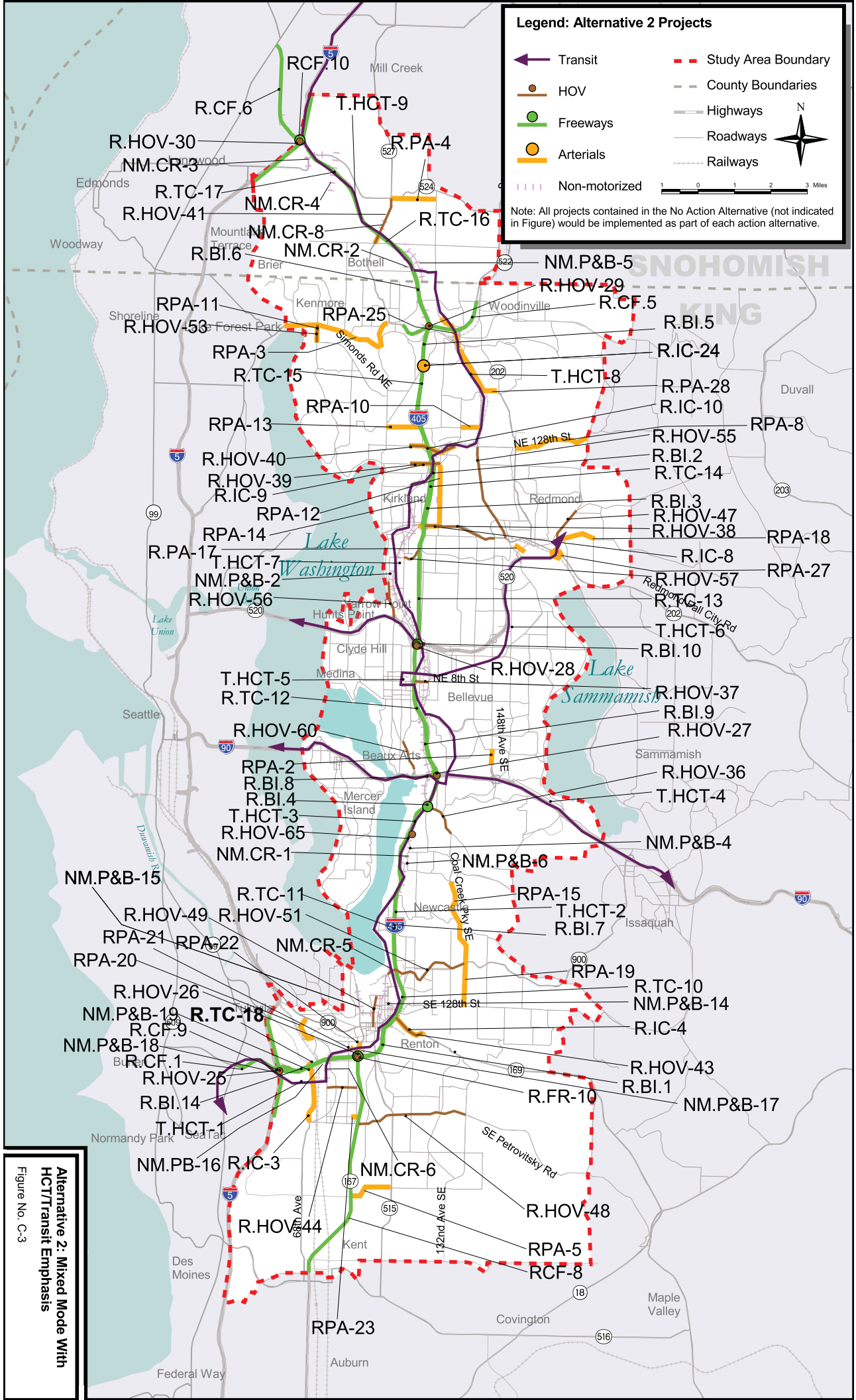
No Action Alternative Projects

Section 4(f) Evaluation: Figure No. C-1



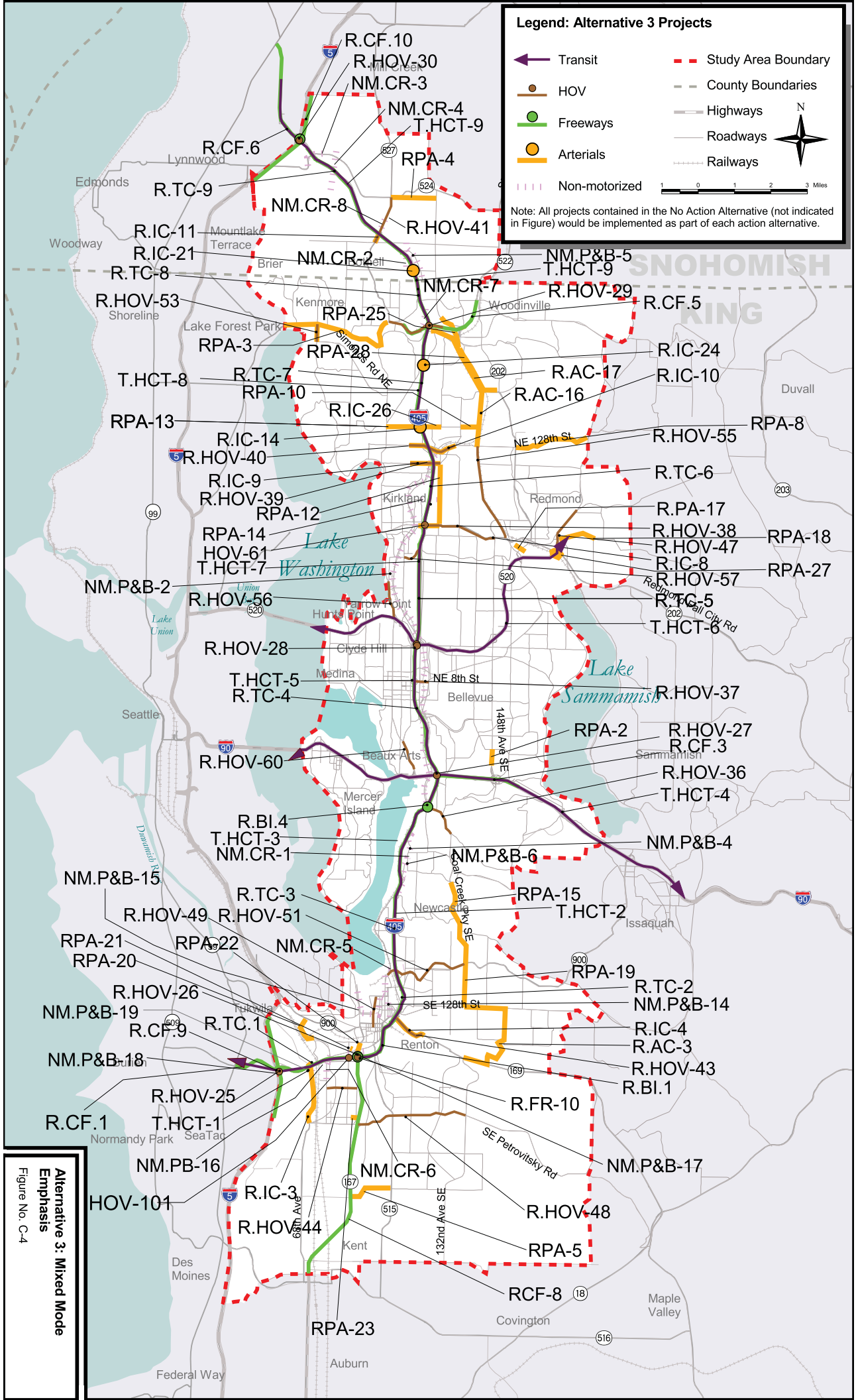
Alternative 1: HCT/TDM Emphasis

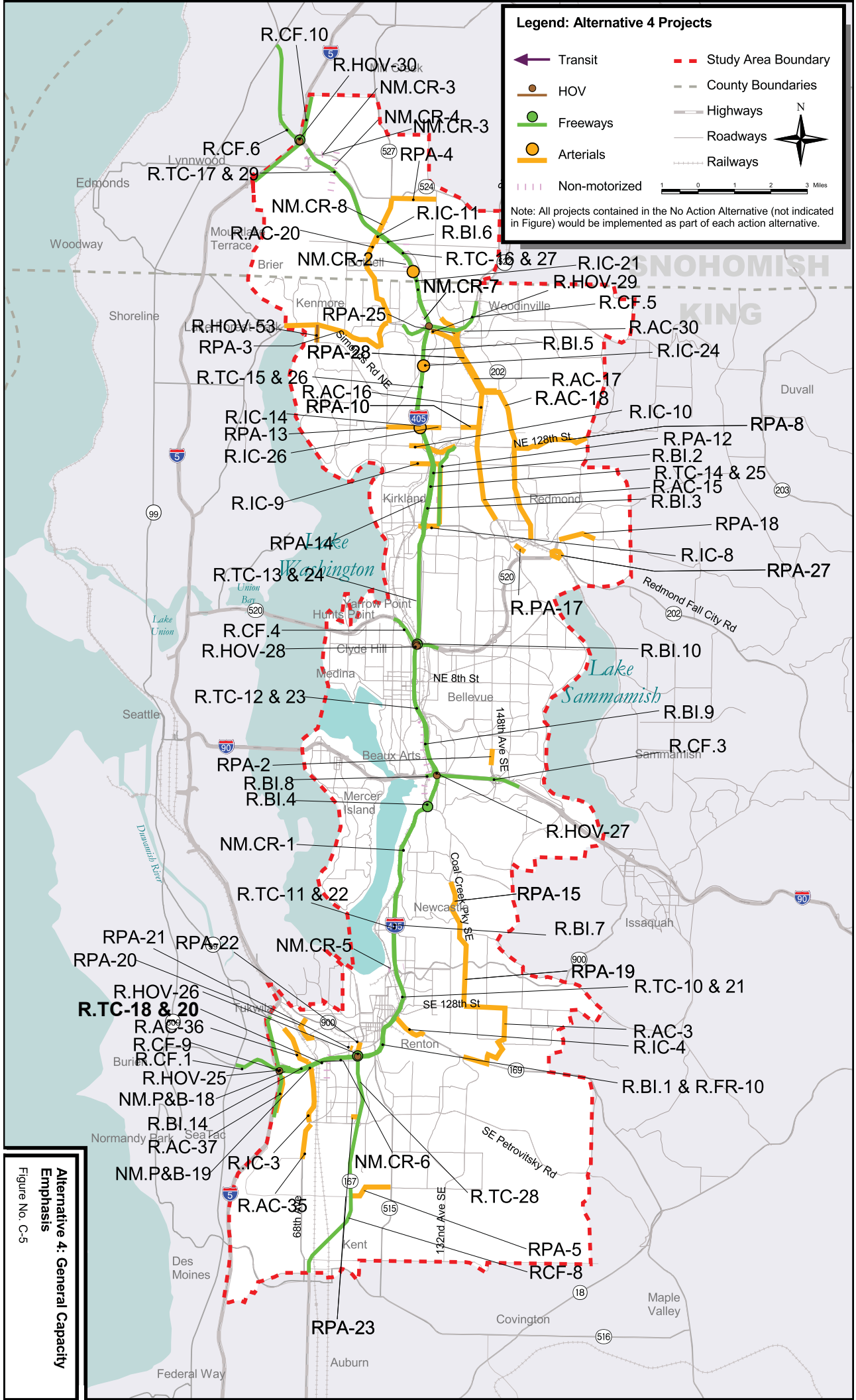
Figure No. C-2



Alternative 2: Mixed Mode With HCT/Transit Emphasis

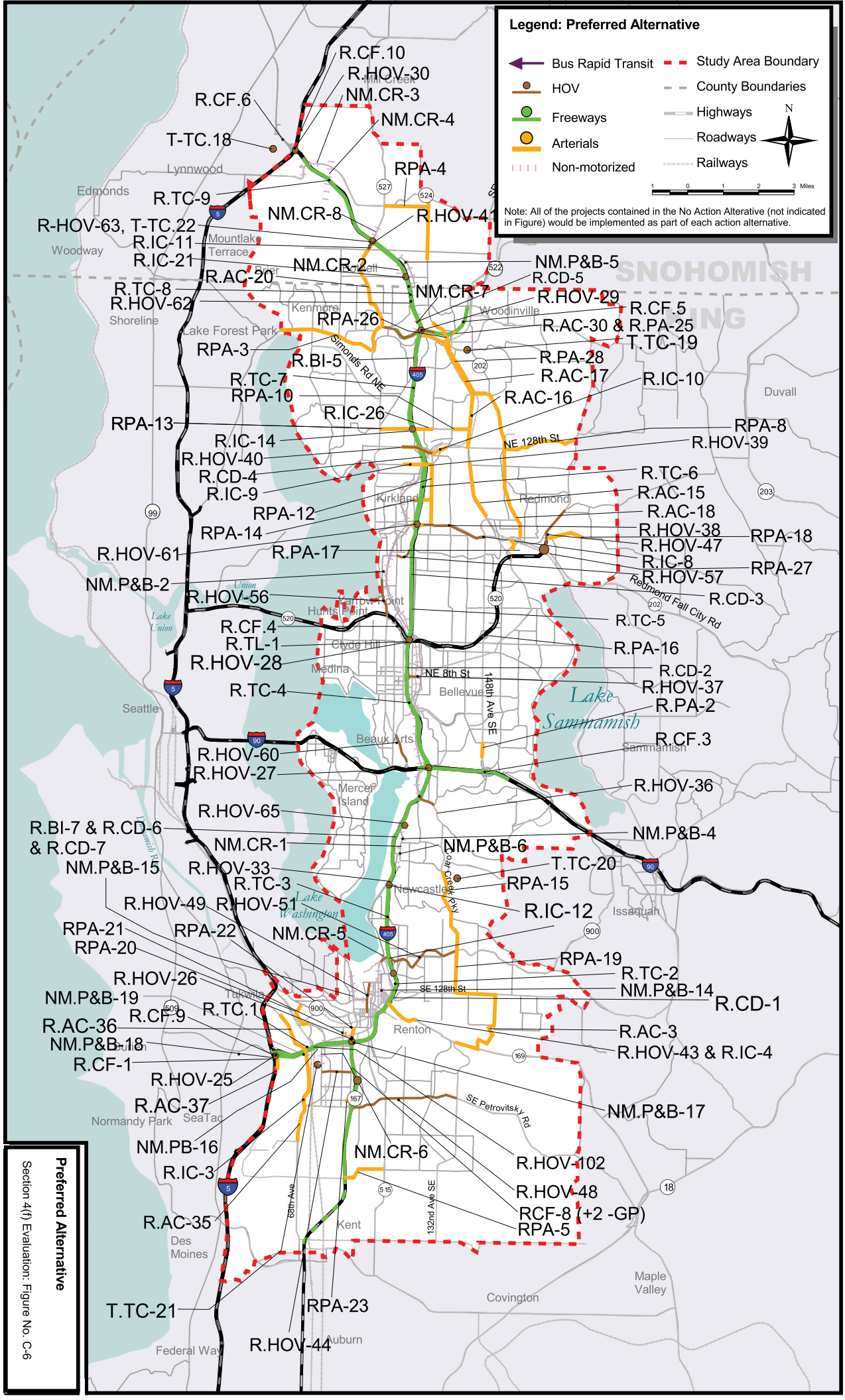
Figure No. C-3


Legend: Alternative 3 Projects
Transit
HOV
Freeways
Arterials
Non-motorized
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
Miles
Note: All projects contained in the No Action Alternative (not indicated in Figure) would be implemented as part of each action alternative.
R.CF.10
R.HOV-30
NM.CR-3
NM.CR-4
T.HCT-9
R.CF.6
RPA-4
R.TC-9
NM.CR-8
R.HOV-41
R.IC-11
R.IC-21
R.TC-8
NM.CR-2
NM.P&B-5
T.HCT-9
NM.CR-7
R.HOV-53
R.HOV-29
R.CF.5
RPA-25
RPA-3
RPA-28
R.IC-24
T.HCT-8
R.TC-7
RPA-10
R.AC-17
R.IC-10
R.AC-16
R.IC-26
RPA-13
RPA-8
R.IC-14
R.HOV-55
R.HOV-40
R.TC-6
R.IC-9
R.HOV-39
RPA-12
R.PA-17
RPA-14
R.HOV-38
RPA-18
HOV-61
R.HOV-47
T.HCT-7
R.IC-8
RPA-27
NM.P&B-2
R.HOV-57
R.HOV-56
R.TC-5
T.HCT-6
R.HOV-28
T.HCT-5
R.TC-4
R.HOV-37
RPA-2
R.HOV-27
R.CF.3
R.HOV-60
R.HOV-36
T.HCT-4
R.BI.4
T.HCT-3
NM.CR-1
NM.P&B-6
NM.P&B-4
NM.P&B-15
R.TC-3
RPA-15
R.HOV-49
R.HOV-51
T.HCT-2
RPA-21
RPA-22
NM.CR-5
RPA-20
RPA-19
R.HOV-26
R.TC-2
NM.P&B-19
NM.P&B-14
R.CF.9
R.TC.1
R.IC-4
R.AC-3
NM.P&B-18
R.HOV-43
R.BI.1
R.HOV-25
R.FR-10
R.CF.1
T.HCT-1
NM.PB-16
NM.P&B-17
NM.CR-6
HOV-101
R.IC-3
R.HOV-48
R.HOV-44
RPA-5
RCF-8
RPA-23
Alternative 3: Mixed Mode Emphasis
Figure No. C-4
Edmonds
Lynnwood
Woodway
Mountlake Terrace
Brier
Kenmore
Shoreline
Lake Forest Park
Woodinville
SNOHOMISH
KING
Duvall
Kirkland
Redmond
Lake Washington
Lake Union
Seattle
Medina
Clyde Hill
Hunts Point
Yarrow Point
Bellevue
Lake Sammamish
Beaux Arts
Mercer Island
Sammamish
Issaquah
Newcastle
Renton
Tukwila
Burien
SeaTac
Normandy Park
Des Moines
Kent
Auburn
Federal Way
Covington
Maple Valley
Simonds Rd NE
NE 128th St
NE 8th St
148th Ave SE
Coal Creek Pky SE
SE 128th St
SE Petrovitsky Rd
68th Ave
132nd Ave SE
Redmond-Fall City Rd



Alternative 4: General Capacity Emphasis

Figure No. C-5


Legend: Preferred Alternative
Bus Rapid Transit
HOV
Freeways
Arterials
Non-motorized
Study Area Boundary
County Boundaries
Highways
Roadways
Railways
N
1 0 1 2 3 Miles
Note: All of the projects contained in the No Action Alterative (not indicated in Figure) would be implemented as part of each action alternative.
R.CF.10
R.HOV-30
NM.CR-3
R.CF.6
NM.CR-4
T-TC.18
RPA-4
R.TC-9
NM.CR-8
R.HOV-41
R-HOV-63, T-TC.22
R.IC-11
R.IC-21
R.AC-20
NM.CR-2
NM.P&B-5
R.CD-5
R.TC-8
R.HOV-62
NM.CR-7
R.HOV-29
R.CF.5
RPA-26
R.AC-30 & R.PA-25
T.TC-19
RPA-3
R.BI-5
R.PA-28
R.TC-7
RPA-10
R.AC-17
R.IC-10
R.AC-16
R.IC-26
RPA-13
RPA-8
R.IC-14
R.HOV-39
R.HOV-40
R.CD-4
R.IC-9
R.TC-6
R.AC-15
RPA-12
R.AC-18
RPA-14
R.HOV-38
RPA-18
R.HOV-61
R.PA-17
R.HOV-47
R.IC-8
RPA-27
NM.P&B-2
R.HOV-57
R.CD-3
R.HOV-56
R.TC-5
R.CF.4
R.TL-1
R.PA-16
R.HOV-28
R.CD-2
R.TC-4
R.HOV-37
R.PA-2
R.CF.3
R.HOV-60
R.HOV-27
R.HOV-36
R.HOV-65
R.BI-7 & R.CD-6 & R.CD-7
NM.CR-1
NM.P&B-6
NM.P&B-4
NM.P&B-15
R.HOV-33
T.TC-20
R.TC-3
RPA-15
R.HOV-49
R.HOV-51
R.IC-12
RPA-21
RPA-22
NM.CR-5
RPA-20
RPA-19
R.HOV-26
R.TC-2
NM.P&B-19
NM.P&B-14
R.CD-1
R.AC-36
R.CF.9
R.TC.1
R.AC-3
NM.P&B-18
R.HOV-43 & R.IC-4
R.CF-1
R.HOV-25
NM.P&B-17
R.AC-37
NM.PB-16
NM.CR-6
R.HOV-102
R.IC-3
R.HOV-48
RCF-8 (+2 -GP)
R.AC-35
RPA-5
T.TC-21
RPA-23
R.HOV-44
Preferred Alternative
Section 4(f) Evaluation: Figure No. C-6
Lynnwood
Edmonds
Woodway
Mountlake Terrace
Brier
Kenmore
Shoreline
Lake Forest Park
Simonds Rd NE
Duvall
NE 128th St
Kirkland
Redmond
Union
Lake Union
Carnation Point
Hunts Point
Clyde Hill
Medina
NE 8th St
148th Ave SE
Bellevue
Lake Sammamish
Sammamish
Seattle
Beaux Arts
Mercer Island
Lake Washington
Newcastle
Coal Creek Pkwy
Issaquah
Tukwila
SE 128th St
Renton
Normandy Park
SeaTac
SE Petrovitsky Rd
Kent
68th Ave
132nd Ave SE
Des Moines
Covington
Maple Valley
Federal Way
Auburn
SNOHOMISH
KING

APPENDIX D OF FINAL PRELIMINARY SECTION 4(f) EVALUATION: SPECIFIC PARKLANDS AND TRAILS WITHIN THE STUDY AREA

Note: The call-out boxes in the following Figures 1.1 through 1.19 refer to project numbers and descriptions contained in Appendix B.

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APPENDIX I

I-405 Corridor Program
Transportation Data

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APPENDIX I: TRANSPORTATION DATA

Table 1a - PM Peak Period Person Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	Express Lanes Total	I-405 Non-HOV	I-405 HOV	I-405 Bus Transit	I-405 HCT Transit	I-405 Total	Parallel Arterials Non-HOV	Parallel Arterials HOV	Parallel Arterials Bus Transit	Parallel Arterials Total	Screenline Transit	Screenline Total
Bothell, South of the County Line (80th Ave. NE to SR 522)													
1995			29,300	1,300	200	N/A	30,800	39,700	400	100	40,200	300	71,000
Modal Share (%)			95%	4%	1%	N/A	100%	99%	1%	0%	100%	0%	
2020 No-Action Unconstr.							55,600				51,800		107,400
Modal Share (%)							100%				100%		
2020 No-Action			32,900	8,600	400	N/A	41,900	49,000	2,900	200	52,100	600	94,000
Modal Share (%)			79%	21%	1%	N/A	100%	94%	6%	0%	100%	1%	
2020 HCT/TDM (Alt. 1)			32,900	8,600	100	1,400	43,000	49,100	2,900	100	52,100	1,600	95,100
Modal Share (%)			77%	20%	0%	3%	100%	94%	6%	0%	100%	2%	
2020 Transit (Alt. 2)			45,900	9,200	100	1,500	56,700	49,300	2,900	100	52,300	1,700	109,000
Modal Share (%)			81%	16%	0%	3%	100%	94%	6%	0%	100%	2%	
2020 Mixed Mode (Alt. 3)			57,200	9,200	800	N/A	67,200	49,900	2,600	100	52,600	900	119,800
Modal Share (%)			85%	14%	1%	N/A	100%	95%	5%	0%	100%	1%	
2020 General Capacity (Alt. 4)	24,700	24,700	41,300	9,200	700	N/A	51,200	49,000	2,600	200	51,800	900	127,700
Modal Share (%)	100%	100%	81%	18%	1%	N/A	100%	95%	5%	0%	100%	1%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 1b - PM Peak Period Person Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	Express Lanes Total	I-405 Non-HOV	I-405 HOV	I-405 Bus Transit	I-405 HCT Transit	I-405 Total	Parallel Arterials Non-HOV	Parallel Arterials HOV	Parallel Arterials Bus Transit	Parallel Arterials Total	Screenline Transit	Screenline Total
Bellevue, South of NE 8th St. (Bellevue Wy to 156th Ave.)													
1995			53,100	2,300	200	N/A	55,600	49,700	400	700	50,800	900	106,400
Modal Share (%)			96%	4%	0%	N/A	100%	98%	1%	1%	100%	1%	
2020 No-Action Unconstr.							102,300				59,400		161,700
Modal Share (%)							100%				100%		
2020 No-Action			53,800	19,300	300	N/A	73,400	64,000	1,000	3,600	68,600	3,900	142,000
Modal Share (%)			73%	26%	0%	N/A	100%	93%	1%	5%	100%	3%	
2020 HCT/TDM (Alt. 1)			53,200	18,900	100	9,200	81,400	64,200	1,000	800	66,000	10,100	147,400
Modal Share (%)			65%	23%	0%	11%	100%	97%	2%	1%	100%	7%	
2020 Transit (Alt. 2)			73,300	19,300	100	9,500	102,200	59,600	1,000	800	61,400	10,400	163,600
Modal Share (%)			72%	19%	0%	9%	100%	97%	2%	1%	100%	6%	
2020 Mixed Mode (Alt. 3)			92,200	19,900	6,800	N/A	118,900	55,600	1,300	1,800	58,700	8,600	177,600
Modal Share (%)			78%	17%	6%	N/A	100%	95%	2%	3%	100%	5%	
2020 General Capacity (Alt. 4)	32,200	32,200	72,000	20,500	300	N/A	92,800	52,900	1,000	3,900	57,800	4,200	182,800
Modal Share (%)	100%	100%	78%	22%	0%	N/A	100%	92%	2%	7%	100%	2%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 1c - PM Peak Period Person Trips at Selected Screenlines

Screenline	Express Lanes		I-405					Parallel Arterials				Screenline	
	Non-HOV	Total	Non-HOV	HOV	Bus Transit	HCT Transit	Total	Non-HOV	HOV	Bus Transit	Total	Transit	Total
Renton, West of Renton CBD (SR 900 to SW 43rd St.)													
1995			32,100	3,200	-	N/A	35,300	38,500	400	1,300	40,200	1,300	75,500
Modal Share (%)			91%	9%	0%	N/A	100%	96%	1%	3%	100%	2%	
2020 No-Action Unconstr.							81,400				49,800		131,200
Modal Share (%)							100%				100%		
2020 No-Action			30,000	20,800	200	N/A	51,000	48,300	1,300	1,500	51,100	1,700	102,100
Modal Share (%)			59%	41%	0%	N/A	100%	95%	3%	3%	100%	2%	
2020 HCT/TDM (Alt. 1)			30,200	20,200	-	1,700	52,100	48,200	1,000	1,400	50,600	3,100	102,700
Modal Share (%)			58%	39%	0%	3%	100%	95%	2%	3%	100%	3%	
2020 Transit (Alt. 2)			50,200	19,900	-	1,800	71,900	44,900	1,000	1,300	47,200	3,100	119,100
Modal Share (%)			70%	28%	0%	3%	100%	95%	2%	3%	100%	3%	
2020 Mixed Mode (Alt. 3)			68,400	20,500	700	N/A	89,600	43,800	1,000	1,400	46,200	2,100	135,800
Modal Share (%)			76%	23%	1%	N/A	100%	95%	2%	3%	100%	2%	
2020 General Capacity (Alt. 4)	23,300	23,300	50,700	20,800	200	N/A	71,700	42,200	1,300	1,600	45,100	1,800	140,100
Modal Share (%)	100%	100%	71%	29%	0%	N/A	100%	94%	3%	4%	100%	1%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 2a - Daily Person Trips at Selected Screenlines

Screenline	Express Lanes		I-405					Parallel Arterials				Screenline	
	Non-HOV	Total	Non-HOV	HOV	Bus Transit	HCT Transit	Total	Non-HOV	HOV	Bus Transit	Total	Transit	Total
Bothell, South of the County Line (80th Ave. NE to SR 522)													
1995			100,500	2,900	300	N/A	103,700	122,300	700	200	123,200	500	226,900
Modal Share (%)			97%	3%	0%	N/A	100%	99%	1%	0%	100%	0%	
2020 No-Action Unconstr.							213,400				127,000		340,400
Modal Share (%)													
2020 No-Action			115,000	20,200	1,100	N/A	136,300	153,400	7,300	500	161,200	1,600	297,500
Modal Share (%)			84%	15%	1%	N/A	100%	95%	5%	0%	100%	1%	
2020 HCT/TDM (Alt. 1)			114,700	19,900	200	4,200	139,000	153,400	7,600	100	161,100	4,500	300,100
Modal Share (%)			83%	14%	0%	3%	100%	95%	5%	0%	100%	1%	
2020 Transit (Alt. 2)			154,900	21,500	200	4,500	181,100	151,300	7,300	100	158,700	4,800	339,800
Modal Share (%)			86%	12%	0%	2%	100%	95%	5%	0%	100%	1%	
2020 Mixed Mode (Alt. 3)			186,800	21,800	2,700	N/A	211,300	153,000	7,000	300	160,300	3,000	371,600
Modal Share (%)			88%	10%	1%	N/A	100%	95%	4%	0%	100%	1%	
2020 General Capacity (Alt. 4)	82,400	82,400	130,400	21,800	1,900	N/A	154,100	151,000	7,000	600	158,600	2,500	395,100
Modal Share (%)	100%	100%	85%	14%	1%	N/A	100%	95%	4%	0%	100%	1%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 2b - Daily Person Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	Express Lanes Total	I-405 Non-HOV	I-405 HOV	I-405 Bus Transit	I-405 HCT Transit	I-405 Total	Parallel Arterials Non-HOV	Parallel Arterials HOV	Parallel Arterials Bus Transit	Parallel Arterials Total	Screenline Transit	Screenline Total
Bellevue, South of NE 8th St. (Bellevue Wy to 156th Ave.)													
1995			181,200	5,100	600	N/A	186,900	131,500	400	2,200	134,100	2,800	321,000
Modal Share (%)			97%	3%	0%	N/A	100%	98%	0%	2%	100%	1%	
2020 No-Action Unconstr.							382,800				109,400		492,200
Modal Share (%)							100%				100%		
2020 No-Action			183,900	48,200	800	N/A	232,900	186,800	2,300	12,900	202,000	13,700	434,900
Modal Share (%)			79%	21%	0%	N/A	100%	92%	1%	6%	100%	3%	
2020 HCT/TDM (Alt. 1)			181,600	47,000	100	28,500	257,200	188,100	2,300	2,300	192,700	30,900	449,900
Modal Share (%)			71%	18%	0%	11%	100%	98%	1%	1%	100%	7%	
2020 Transit (Alt. 2)			244,600	47,600	100	29,800	322,100	169,600	2,900	2,300	174,800	32,200	496,900
Modal Share (%)			76%	15%	0%	9%	100%	97%	2%	1%	100%	6%	
2020 Mixed Mode (Alt. 3)			308,100	48,600	23,400	N/A	380,100	146,500	3,200	6,500	156,200	29,900	536,300
Modal Share (%)			81%	13%	6%	N/A	100%	94%	2%	4%	100%	6%	
2020 General Capacity (Alt. 4)	103,400	103,400	238,400	50,100	1,000	N/A	289,500	140,100	2,600	13,700	156,400	14,700	549,300
Modal Share (%)	100%	100%	82%	17%	0%	N/A	100%	90%	2%	9%	100%	3%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 2c - Daily Person Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	Express Lanes Total	I-405 Non-HOV	I-405 HOV	I-405 Bus Transit	I-405 HCT Transit	I-405 Total	Parallel Arterials Non-HOV	Parallel Arterials HOV	Parallel Arterials Bus Transit	Parallel Arterials Total	Screenline Transit	Screenline Total
Renton, West of Renton CBD (SR 900 to SW 43rd St.)													
1995			111,900	7,600	-	N/A	119,500	115,100	700	4,400	120,200	4,400	239,700
Modal Share (%)			94%	6%	0%	N/A	100%	96%	1%	4%	100%	2%	
2020 No-Action Unconstr.							306,300				155,800		462,100
Modal Share (%)							100%				100%		
2020 No-Action			116,200	47,900	600	N/A	164,700	139,800	3,200	4,500	147,500	5,100	312,200
Modal Share (%)			71%	29%	0%	N/A	100%	95%	2%	3%	100%	2%	
2020 HCT/TDM (Alt. 1)			115,000	46,400	-	6,800	168,200	139,800	2,300	3,900	146,000	10,700	314,200
Modal Share (%)			68%	28%	0%	4%	100%	96%	2%	3%	100%	3%	
2020 Transit (Alt. 2)			184,500	47,600	-	7,200	239,300	130,700	1,900	3,800	136,400	11,000	375,700
Modal Share (%)			77%	20%	0%	3%	100%	96%	1%	3%	100%	3%	
2020 Mixed Mode (Alt. 3)			239,400	48,200	2,800	N/A	290,400	123,200	1,900	4,400	129,500	7,200	419,900
Modal Share (%)			82%	17%	1%	N/A	100%	95%	1%	3%	100%	2%	
2020 General Capacity (Alt. 4)	86,500	86,500	171,900	49,500	500	N/A	221,900	119,100	3,200	5,600	127,900	6,100	436,300
Modal Share (%)	100%	100%	77%	22%	0%	N/A	100%	93%	3%	4%	100%	1%	

NOTES:
1) Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
2) HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
3) Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 3a - PM Peak Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Bothell, South of the County Line (80th Ave. NE to SR 522)													
1995					22,000	400	2,100	24,500	29,800	100	2,000	31,900	56,400
Share by Facility (%)								43%				57%	100%
2020 No-Action Unconstr.								40,200				38,900	79,100
Share by Facility (%)								51%				49%	100%
2020 No-Action					24,700	2,700	2,100	29,500	36,800	900	1,800	39,500	69,000
Share by Facility (%)								43%				57%	100%
2020 HCT/TDM (Alt. 1)					24,700	2,700	2,100	29,500	36,900	900	1,800	39,600	69,100
Share by Facility (%)								43%				57%	100%
2020 Transit (Alt. 2)					34,500	2,900	3,000	40,400	37,000	900	1,900	39,800	80,200
Share by Facility (%)								50%				50%	100%
2020 Mixed Mode (Alt. 3)					43,000	2,900	3,700	49,600	37,500	800	1,900	40,200	89,800
Share by Facility (%)								55%				45%	100%
2020 General Capacity (Alt. 4)	18,500	-	1,600	20,100	31,000	2,900	2,700	36,600	36,800	800	2,000	39,600	96,300
Share by Facility (%)				21%				38%				41%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 3b - PM Peak Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Bellevue, South of NE 8th St. (Bellevue Wy to 156th Ave.)													
1995					39,900	700	3,500	44,100	37,300	100	2,600	40,000	84,100
Share by Facility (%)								52%				48%	100%
2020 No-Action Unconstr.								73,200				37,200	110,400
Share by Facility (%)								66%				34%	100%
2020 No-Action					40,400	6,100	3,200	49,700	48,100	300	3,400	51,800	101,500
Share by Facility (%)								49%				51%	100%
2020 HCT/TDM (Alt. 1)					40,000	6,000	3,200	49,200	48,200	300	3,400	51,900	101,100
Share by Facility (%)								49%				51%	100%
2020 Transit (Alt. 2)					55,100	6,100	4,600	65,800	44,800	300	3,400	48,500	114,300
Share by Facility (%)								58%				42%	100%
2020 Mixed Mode (Alt. 3)					69,300	6,300	6,200	81,800	41,800	400	3,200	45,400	127,200
Share by Facility (%)								64%				36%	100%
2020 General Capacity (Alt. 4)	24,200	-	2,400	26,600	54,100	6,500	4,900	65,500	39,700	300	2,900	42,900	135,000
Share by Facility (%)				20%				49%				32%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 3c - PM Peak Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Renton, West of Renton CBD (SR 900 to SW 43rd St.)													
1995					24,100	1,000	2,200	27,300	28,900	100	2,100	31,100	58,400
Share by Facility (%)								47%				53%	100%
2020 No-Action Unconstr.								55,900				38,600	94,500
Share by Facility (%)								59%				41%	100%
2020 No-Action					22,500	6,600	2,100	31,200	36,300	400	3,000	39,700	70,900
Share by Facility (%)								44%				56%	100%
2020 HCT/TDM (Alt. 1)					22,700	6,400	2,100	31,200	36,200	300	3,000	39,500	70,700
Share by Facility (%)								44%				56%	100%
2020 Transit (Alt. 2)					37,700	6,300	3,400	47,400	33,700	300	2,900	36,900	84,300
Share by Facility (%)								56%				44%	100%
2020 Mixed Mode (Alt. 3)					51,400	6,500	4,500	62,400	32,900	300	2,800	36,000	98,400
Share by Facility (%)								63%				37%	100%
2020 General Capacity (Alt. 4)	17,500	-	1,700	19,200	38,100	6,600	3,400	48,100	31,700	400	2,800	34,900	102,200
Share by Facility (%)				19%				47%				34%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 4a - Daily Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Bothell, South of the County Line (80th Ave. NE to SR 522)													
1995					75,500	900	16,500	92,900	91,900	200	11,100	103,200	196,100
Share by Facility (%)								47%				53%	100%
2020 No-Action Unconstr.								184,600				103,600	288,200
Share by Facility (%)								64%				36%	100%
2020 No-Action					86,400	6,400	16,200	109,000	115,300	2,300	12,600	130,200	239,200
Share by Facility (%)								46%				54%	100%
2020 HCT/TDM (Alt. 1)					86,200	6,300	16,200	108,700	115,300	2,400	12,600	130,300	239,000
Share by Facility (%)								45%				55%	100%
2020 Transit (Alt. 2)					116,400	6,800	22,800	146,000	113,700	2,300	12,300	128,300	274,300
Share by Facility (%)								53%				47%	100%
2020 Mixed Mode (Alt. 3)					140,400	6,900	27,500	174,800	115,000	2,200	12,700	129,900	304,700
Share by Facility (%)								57%				43%	100%
2020 General Capacity (Alt. 4)	61,900	-	13,000	74,900	98,000	6,900	18,400	123,300	113,500	2,200	12,700	128,400	326,600
Share by Facility (%)				23%				38%				39%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 4b - Daily Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Bellevue, South of NE 8th St. (Bellevue Wy to 156th Ave.)													
1995					136,200	1,600	27,200	165,000	98,800	100	15,300	114,200	279,200
Share by Facility (%)								59%				41%	100%
2020 No-Action Unconstr.								330,200				81,700	411,900
Share by Facility (%)								80%				20%	100%
2020 No-Action					138,200	15,300	25,700	179,200	140,400	700	23,500	164,600	343,800
Share by Facility (%)								52%				48%	100%
2020 HCT/TDM (Alt. 1)					136,500	14,900	25,600	177,000	141,400	700	23,800	165,900	342,900
Share by Facility (%)								52%				48%	100%
2020 Transit (Alt. 2)					183,900	15,100	36,000	235,000	127,500	900	23,100	151,500	386,500
Share by Facility (%)								61%				39%	100%
2020 Mixed Mode (Alt. 3)					231,600	15,400	48,000	295,000	110,100	1,000	19,600	130,700	425,700
Share by Facility (%)								69%				31%	100%
2020 General Capacity (Alt. 4)	77,700	-	17,700	95,400	179,200	15,900	36,600	231,700	105,300	800	18,500	124,600	451,700
Share by Facility (%)				21%				51%				28%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 4c - Daily Vehicle Trips at Selected Screenlines

Screenline	Express Lanes Non-HOV	HOV	Comm.	Total	I-405 Non-HOV	HOV	Commercial	Total	Parallel Arterials Non-HOV	HOV	Commercial	Total	Screenline Total
Renton, West of Renton CBD (SR 900 to SW 43rd St.)													
1995					84,100	2,400	16,700	103,200	86,500	200	14,900	101,600	204,800
Share by Facility (%)								50%				50%	100%
2020 No-Action Unconstr.								262,400				131,900	394,300
Share by Facility (%)								67%				33%	100%
2020 No-Action					87,300	15,200	17,700	120,200	105,100	1,000	19,900	126,000	246,200
Share by Facility (%)								49%				51%	100%
2020 HCT/TDM (Alt. 1)					86,400	14,700	17,600	118,700	105,100	700	19,900	125,700	244,400
Share by Facility (%)								49%				51%	100%
2020 Transit (Alt. 2)					138,700	15,100	27,800	181,600	98,200	600	18,600	117,400	299,000
Share by Facility (%)								61%				39%	100%
2020 Mixed Mode (Alt. 3)					180,000	15,300	36,500	231,800	92,600	600	17,400	110,600	342,400
Share by Facility (%)								68%				32%	100%
2020 General Capacity (Alt. 4)	65,000	-	13,500	78,500	129,200	15,700	27,000	171,900	89,500	1,000	16,900	107,400	357,800
Share by Facility (%)				22%				48%				30%	100%

NOTES:
- The information presented in this table was directly produced by the model without any post-processing analysis.
- Non-HOVs represent auto vehicles with driver or driver plus one passenger. An average vehicle occupancy factor of 1.33 was used to convert vehicle volumes to person volumes for Non-HOV trips.
- HOVs represent auto vehicles with 3 or more occupants. An average vehicles occupancy factor of 3.15 was used to convert vehicle volumes to person volumes for HOV trips. HOV values represent HOVs on GP and HOV lanes if one exists.
- Note that the 3+ eligible HOVs predicted under the alternatives are significantly higher than the 1995 estimate of 3+ HOVs. This is due to congestion on general purpose lanes parallel to nearly free flow HOV lanes.

Table 5 - Comparative Analysis of Daily Vehicle Volumes on I-405

Location on I-405	1995	2020 No-Action Unconstr.	2020 No Action	2020 Alternative 1	Change vs. NA	2020 Alternative 2	Change vs. NA	2020 Alternative 3	Change vs. NA	2020 Alternative 4			Change vs. NA
										Mainline	Express	Total	
South of SR 524	81,621	163,098	93,317	93,211	0%	128,023	37%	155,703	67%	162,396		162,396	74%
South of 228th St SE	92,822	184,458	108,812	108,463	0%	145,810	34%	174,749	61%	123,257	74,780	198,037	82%
South of County Line	92,822	184,458	108,812	108,463	0%	145,810	34%	174,579	60%	123,147	74,780	197,927	82%
South of NE 124th St	133,176	244,723	153,839	153,448	0%	206,504	34%	245,160	59%	190,161	82,520	272,681	77%
North of NE 85th St	152,174	269,453	183,534	182,513	-1%	227,599	24%	265,992	45%	212,066	82,520	294,586	61%
South of NE 70th St	147,446	225,677	163,108	162,593	0%	202,126	24%	237,779	46%	177,154	95,343	272,497	67%
South of Main St (Bellevue)	164,832	330,078	179,002	176,807	-1%	234,879	31%	294,826	65%	231,559	95,343	326,902	83%
South of SE 60th St	116,525	242,934	123,050	122,728	0%	196,444	60%	250,470	104%	184,005	103,314	287,319	133%
South of SR 169	119,460	252,386	148,110	147,715	0%	209,106	41%	263,335	78%	189,242	103,314	292,556	98%
East of SR 181	103,017	262,296	119,980	118,550	-1%	181,441	51%	231,693	93%	171,875	78,373	250,249	109%

Table 6 – Screenline Summaries

Screen Number	1995	2020 No-Action Unconstr.	2020 No-Action	2020 Alternative 1	% Change vs. 2020 No-Action	2020 Alternative 2	% Change vs. 2020 No-Action	2020 Alternative 3	% Change vs. 2020 No-Action	2020 Alternative 4	% Change vs. 2020 No-Action
1	151,972	250,148	208,684	208,625	0%	237,326	14%	261,209	25%	265,160	27%
2	100,122	118,532	114,766	113,200	-1%	121,573	6%	125,074	9%	126,374	10%
3	157,261	234,913	178,881	178,680	0%	191,035	7%	195,183	9%	199,062	11%
4	169,781	288,612	244,390	238,962	-2%	262,375	7%	265,479	9%	276,872	13%
5	185,545	334,418	214,088	211,954	-1%	244,812	14%	257,618	20%	260,081	21%
6	178,556	230,713	238,394	240,343	1%	248,513	4%	249,980	5%	254,734	7%
7	118,246	207,374	158,413	158,595	0%	158,722	0%	157,324	-1%	158,031	0%
8	38,231	72,944	66,360	66,609	0%	65,481	-1%	63,682	-4%	62,333	-6%
9	23,804	44,291	55,900	56,052	0%	53,127	-5%	52,089	-7%	51,290	-8%
10	45,913	78,509	97,581	97,387	0%	91,000	-7%	87,653	-10%	85,937	-12%
11	44,203	89,366	90,217	90,190	0%	90,482	0%	90,694	1%	90,747	1%
12	275,778	314,500	361,543	361,043	0%	360,347	0%	357,368	-1%	355,076	-2%
13	158,045	287,928	238,893	238,622	0%	273,937	15%	304,323	27%	326,127	37%
14	197,735	316,171	266,577	265,798	0%	313,464	18%	331,272	24%	360,490	35%
15	332,357	509,898	448,298	448,845	0%	483,074	8%	512,912	14%	542,195	21%
16	270,736	411,608	343,457	342,635	0%	386,201	12%	425,350	24%	451,302	31%
17	116,525	242,934	123,050	122,728	0%	196,444	60%	250,470	104%	287,319	133%
18	41,592	72,811	83,010	83,048	0%	82,295	-1%	82,306	-1%	82,194	-1%
19	13,332	20,018	36,571	36,601	0%	34,674	-5%	33,787	-8%	33,215	-9%
20	435,687	694,630	575,906	573,578	0%	647,134	12%	688,953	20%	711,644	24%
21	458,484	723,374	629,705	629,099	0%	664,886	6%	668,419	6%	672,715	7%
22	202,565	394,054	245,752	244,074	-1%	298,665	22%	342,201	39%	357,567	45%
23	757,727	1,031,818	953,477	952,140	0%	978,847	3%	997,911	5%	1,020,319	7%
24	196,878	327,486	273,399	272,478	0%	314,283	15%	346,356	27%	363,903	33%
25	222,276	390,539	319,305	318,147	0%	350,660	10%	379,380	19%	407,286	28%
26	25,956	39,891	63,503	63,647	0%	60,278	-5%	58,745	-7%	57,814	-9%
27	352,355	452,668	478,067	477,638	0%	459,324	-4%	440,654	-8%	428,239	-10%
28	426,701	599,379	559,908	559,983	0%	542,605	-3%	528,951	-6%	519,543	-7%
29	404,497	585,417	567,092	563,201	-1%	550,479	-3%	540,708	-5%	528,701	-7%
30	337,237	455,594	470,734	469,826	0%	456,715	-3%	441,551	-6%	430,488	-9%

Table 7. Screenline Details

Comparative Analysis of Daily Vehicle Volumes - Detailed
I-405 Corridor Program

PSRC Screen Number	From Node	To Node	Name of Facility	1995	2020 No-Action Unconstrained	2020 No Action	2020 Alternative 1	Change vs. NA	2020 Alternative 2	Change vs. NA	2020 Alternative 3	Change vs. NA	2020 Alternative 4
1	2123	2122	SR 522	48,138	48,468	68,798	68,758	0%	66,637	-3%	64,612	-6%	63,629
	2566	3749	NE 202nd St	5,723	7,776	8,039	8,112	1%	7,960	-1%	8,036	0%	7,853
	2189	2190	Filbert Rd (SR 524)	16,490	30,806	38,531	38,544	0%	34,706	-10%	32,858	-15%	31,281
	3278	3601	I-405 GP	81,621	161,915	86,736	86,733	0%	121,202	40%	148,736	71%	155,590
	4898	4991	I-405 HOV		1,183	6,581	6,479	-2%	6,821	4%	6,967	6%	6,806
1			**TOTAL**	**151,972**	**250,148**	**208,684**	**208,625**	**0%**	**237,326**	**14%**	**261,209**	**25%**	**265,160**
2	2252	3142	SR 522	30,704	36,047	36,280	35,945	-1%	38,768	7%	40,574	12%	40,716
	2908	2909	Juanita-Woodinville Wy NE	13,661	16,609	17,654	17,555	-1%	17,376	-2%	14,392	-18%	13,421
	4080	4081	NE 132nd St	12,851	2,961	21,116	21,405	1%	20,094	-5%	19,247	-9%	18,590
	2233	2234	NE 124th St	19,813	31,769	15,063	14,697	-2%	19,976	33%	25,488	69%	26,234
	2998	4082	NE 116th St	23,093	31,146	24,652	23,599	-4%	25,358	3%	25,373	3%	27,413
2			**TOTAL**	**100,122**	**118,532**	**114,766**	**113,200**	**-1%**	**121,573**	**6%**	**125,074**	**9%**	**126,374**
3	2229	3728	NE 85th St	19,136	17,581	13,050	13,030	0%	11,133	-15%	12,121	-7%	14,944
	3727	3728	Kirkland Wy	14,609	-	19,396	18,963	-2%	20,210	4%	21,053	9%	20,611
	2213	3132	NE 68th St	25,422	56,900	28,331	28,148	-1%	27,624	-2%	28,081	-1%	29,361
	1768	1767	Northrup Wy	10,755	7,189	25,108	25,413	1%	18,455	-26%	18,640	-26%	18,582
	3128	3112	SR 520	87,339	153,243	92,997	93,127	0%	113,613	22%	115,288	24%	115,564
3			**TOTAL**	**157,261**	**234,913**	**178,881**	**178,680**	**0%**	**191,035**	**7%**	**195,183**	**9%**	**199,062**
4	3136	3143	SR 522	79,768	125,258	102,470	99,198	-3%	112,448	10%	124,390	21%	129,299
	4019	4020	NE 160th St	14,066	22,663	21,639	21,024	-3%	24,290	12%	20,617	-5%	21,284
	4015	4016	NE 132nd St	14,758	21,189	24,414	24,323	0%	22,580	-8%	24,263	-1%	26,342
	4009	4014	Totem Lake Blvd	16,259	1,855	24,742	23,832	-4%	25,833	4%	25,035	1%	24,447
	3134	4014	NE 124th St	37,929	110,179	44,386	44,668	1%	64,150	45%	62,064	40%	66,198
	3334	2910	NE 116th St	7,002	7,469	26,740	25,916	-3%	13,074	-51%	9,110	-66%	9,302
4			**TOTAL**	**169,781**	**288,612**	**244,390**	**238,962**	**-2%**	**262,375**	**7%**	**265,479**	**9%**	**276,872**

5	4008	2228	NE 85th St	29,888	22,701	50,131	47,381	-5%	52,305	4%	53,628	7%	52,915
	2854	2996	NE 70th St	11,988	60,761	11,869	14,508	22%	11,731	-1%	13,973	18%	13,866
	4048	4047	NE 60th St	1,581	227	4,850	4,783	-1%	4,014	-17%	4,103	-15%	4,188
	3129	3705	SR-520	77,506	162,352	66,088	63,780	-3%	101,696	54%	110,400	67%	113,055
	1766	1753	Northrup Wy	21,251	51,098	22,483	22,302	-1%	21,781	-3%	21,256	-5%	23,035
	1745	4026	NE Bellevue-Redmond Rd	19,006	23,562	33,444	34,684	4%	30,079	-10%	32,251	-4%	31,138
	1743	1744	NE 8th St	24,325	13,718	25,223	24,516	-3%	23,207	-8%	22,006	-13%	21,886
5			**TOTAL**	**185,545**	**334,418**	**214,088**	**211,954**	**-1%**	**244,812**	**14%**	**257,618**	**20%**	**260,081**
6	1719	1720	Lake Hill Connector	25,686	29,259	34,452	34,334	0%	33,786	-2%	33,248	-3%	33,188
	3109	3116	I-90 GP	106,305	139,488	144,924	147,105	2%	148,701	3%	147,973	2%	149,568
	4810	4951	I-90 HOV	505	3,205	6,978	6,821	-2%	7,098	2%	6,993	0%	7,187
	2886	1694	Coal Creek Pkwy SE	39,352	55,249	35,930	36,407	1%	49,642	38%	53,482	49%	56,252
	2879	2797	SE 60th St	6,708	3,513	16,109	15,676	-3%	9,285	-42%	8,284	-49%	8,539
6			**TOTAL**	**178,556**	**230,713**	**238,394**	**240,343**	**1%**	**248,513**	**4%**	**249,980**	**5%**	**254,734**
7	2246	2245	Woodinville-Duvall Rd	12,338	19,465	22,641	22,305	-1%	20,557	-9%	20,619	-9%	21,080
	5498	5539	NE 165th St	3,613	6,418	7,013	6,943	-1%	5,784	-18%	5,452	-22%	5,389
	5541	2237	NE 128th St	7,393	12,209	18,089	18,023	0%	19,318	7%	20,189	12%	21,157
	6621	3851	NE 116th St	3,799	3,579	11,098	11,060	0%	12,346	11%	12,601	14%	12,225
	2221	2220	Avondale Wy NE	9,738	2,101	12,273	12,399	1%	12,319	0%	12,193	-1%	12,092
	2221	3160	Redmond Wy (SR 202)	20,201	44,663	25,791	26,196	2%	26,123	1%	24,971	-3%	25,110
	3389	3160	SR 520	61,165	118,939	61,508	61,669	0%	62,274	1%	61,300	0%	60,977
7			**TOTAL**	**118,246**	**207,374**	**158,413**	**158,595**	**0%**	**158,722**	**0%**	**157,324**	**-1%**	**158,031**
8	2556	5545	Novelty Hill Rd	11,796	20,716	17,096	17,116	0%	16,964	-1%	16,345	-4%	15,114
	4141	4189	Union Hill Rd	9,370	13,952	15,736	15,760	0%	15,822	1%	15,709	0%	15,699
	2565	2216	SR 202	4,626	17,889	12,289	12,395	1%	11,784	-4%	11,460	-7%	11,426
	2565	2572	Sahalee Wy NE	12,440	20,387	21,239	21,338	0%	20,911	-2%	20,169	-5%	20,094
8			**TOTAL**	**38,231**	**72,944**	**66,360**	**66,609**	**0%**	**65,481**	**-1%**	**63,682**	**-4%**	**62,333**
9	2599	1958	SR 203	12,495	15,104	28,542	28,632	0%	26,291	-8%	25,526	-11%	24,855
	4109	4170	NE Union Hill Rd	4,065	3,569	5,319	5,370	1%	5,415	2%	5,308	0%	5,290
	4173	4170	NE Ames Lake Rd	1,207	12,002	9,729	9,715	0%	9,549	-2%	9,517	-2%	9,466
	4209	1707	Redmond Fall City Rd (SR 20	6,037	13,617	12,311	12,334	0%	11,873	-4%	11,738	-5%	11,679
9			**TOTAL**	**23,804**	**44,291**	**55,900**	**56,052**	**0%**	**53,127**	**-5%**	**52,089**	**-7%**	**51,290**
10	1956	2579	SR 203	6,225	4,263	19,576	19,553	0%	17,781	-9%	16,743	-14%	16,076
	1706	4188	SR 202	6,920	20,525	20,011	19,952	0%	19,345	-3%	19,191	-4%	19,087
	3123	4187	Preston-Fall City Rd	5,957	6,215	12,259	12,263	0%	10,332	-16%	9,298	-24%	8,807
	3123	3124	I-90	26,810	47,506	45,735	45,619	0%	43,542	-5%	42,420	-7%	41,967
10			**TOTAL**	**45,913**	**78,509**	**97,581**	**97,387**	**0%**	**91,000**	**-7%**	**87,653**	**-10%**	**85,937**

11	2581	2547	SR 202 North Bend Blvd N	10,050	17,080	27,777	27,788	0%	27,798	0%	28,032	1%	27,911
	3125	3139	I-90	34,152	72,286	62,440	62,402	0%	62,683	0%	62,661	0%	62,835
11			**TOTAL**	**44,203**	**89,366**	**90,217**	**90,190**	**0%**	**90,482**	**0%**	**90,694**	**1%**	**90,747**
12	2123	2124	SR-522	52,005	48,134	74,623	74,520	0%	71,885	-4%	69,465	-7%	68,028
	3999	3126	SR-520	102,267	148,987	121,407	121,406	0%	123,515	2%	123,835	2%	123,305
	3224	3113	I-90 GP	121,393	117,283	158,699	158,451	0%	157,786	-1%	156,978	-1%	156,518
	4893	4894	I-90 HOV	114	97	6,815	6,666	-2%	7,161	5%	7,090	4%	7,226
12			**TOTAL**	**275,778**	**314,500**	**361,543**	**361,043**	**0%**	**360,347**	**0%**	**357,368**	**-1%**	**355,076**
13	2694	2563	80th Ave NE (Meridian Ave S	6,949	8,596	9,562	9,576	0%	9,536	0%	9,353	-2%	9,179
	2253	2251	SR 527	11,205	13,192	19,841	19,877	0%	16,621	-16%	15,241	-23%	14,136
	3137	3602	I-405 GP	92,822	182,324	102,437	102,245	0%	139,079	36%	167,745	64%	116,323
	4936	4992	I-405 HOV		2,134	6,376	6,218	-2%	6,731	6%	6,834	7%	6,825
	8350	8351	Express Lanes										74,780
	3998	3144	SR 522	32,068	-	60,237	60,320	0%	64,105	6%	70,508	17%	68,692
	2644	3145	SR 9	15,001	81,682	40,441	40,386	0%	37,865	-6%	34,643	-14%	36,194
13			**TOTAL**	**158,045**	**287,928**	**238,893**	**238,622**	**0%**	**273,937**	**15%**	**304,323**	**27%**	**326,127**
14	2255	2232	Juanita Dr NE	13,321	15,762	17,398	17,337	0%	16,867	-3%	15,874	-9%	15,688
	4082	2234	120th Ave NE	7,066	2,540	8,194	8,253	1%	6,329	-23%	4,745	-42%	4,374
	3334	3134	I-405 GP	132,004	240,292	142,734	142,699	0%	195,470	37%	233,879	64%	178,521
	4817	4818	I-405 HOV	1,172	4,431	11,106	10,749	-3%	11,034	-1%	11,281	2%	11,640
	8351	8352	Express Lanes										82,520
	2910	4014	124th Ave NE	16,502	26,592	35,604	35,197	-1%	26,314	-26%	25,345	-29%	25,091
	2281	2235	Willows Rd	12,037	16,594	22,395	22,420	0%	21,647	-3%	26,251	17%	29,611
	2242	2236	SR 202	15,633	9,961	29,147	29,143	0%	35,803	23%	13,898	-52%	13,044
14			**TOTAL**	**197,735**	**316,171**	**266,577**	**265,798**	**0%**	**313,464**	**18%**	**331,272**	**24%**	**360,490**
15	1769	2211	Lake Washington Blvd	21,982	46,325	63,868	63,551	0%	62,615	-2%	61,288	-4%	59,260
	1768	2950	108th Ave NE	21,753	24,360	25,402	25,364	0%	23,900	-6%	24,152	-5%	23,564
	3112	3132	I-405 GP	146,188	221,128	150,513	150,526	0%	189,845	26%	225,681	50%	164,715
	4814	4815	I-405 HOV	1,258	4,549	12,594	12,067	-4%	12,280	-2%	12,098	-4%	12,439
	8352	8353	Express Lanes										95,343
	2841	2946	140th Ave NE	4,237	55,864	17,214	18,418	7%	16,824	-2%	17,962	4%	18,348
	2214	2947	148TH AVE NE	26,235	5,277	30,246	26,618	-12%	29,267	-3%	27,237	-10%	27,433
	2993	2994	156th Ave NE	38,273	12,370	46,077	47,211	2%	47,464	3%	43,212	-6%	43,097
	3729	3158	SR-520	62,892	137,520	77,378	79,880	3%	75,835	-2%	76,571	-1%	74,000
	4744	4956	SR-520 HOV		1,593	2,082	2,034	-2%	2,066	-1%	2,121	2%	2,077
	2948	1760	Bellevue Redmond	4,770	456	11,067	11,209	1%	11,146	1%	10,998	-1%	10,751
	1760	2215	West Lake Sammamish Pkw	4,770	456	11,856	11,965	1%	11,830	0%	11,591	-2%	11,169
15			**TOTAL**	**332,357**	**509,898**	**448,298**	**448,845**	**0%**	**483,074**	**8%**	**512,912**	**14%**	**542,195**

16	1717	1736	Bellevue Wy SE	19,902	2,100	24,165	24,064	0%	24,901	3%	16,824	-30%	14,296
	1717	1734	108th Ave SE	5,256	623	10,038	9,963	-1%	8,226	-18%	7,726	-23%	7,631
	1718	1733	112th Ave SE	16,038	3,588	26,144	26,496	1%	25,382	-3%	25,205	-4%	24,974
	2898	4490	114th Ave SE	12,850	15,185	15,507	15,587	1%	15,905	3%	14,728	-5%	13,721
	3110	3256	I-405 GP	163,266	324,480	163,758	161,981	-1%	219,795	34%	279,441	71%	215,690
	4811	4812	I-405 HOV	1,567	5,598	15,244	14,826	-3%	15,084	-1%	15,385	1%	15,869
	8352	8353	Express Lanes										95,343
	1721	4087	140th Ave SE	16,700	21,383	22,942	23,080	1%	22,552	-2%	20,399	-11%	19,469
	1722	4088	148th Ave SE	16,846	9,463	43,497	43,488	0%	33,814	-22%	26,498	-39%	25,643
	4089	1724	156th Ave SE	18,311	29,189	22,162	23,152	4%	20,542	-7%	19,144	-14%	18,665
16			**TOTAL**	**270,736**	**411,608**	**343,457**	**342,635**	**0%**	**386,201**	**12%**	**425,350**	**24%**	**451,302**
17	3106	3107	I-405	115,010	242,934	112,294	112,224	0%	185,662	65%	238,893	113%	171,915
	4807	4808	I-405 HOV	1,515	-	10,756	10,504	-2%	10,781	0%	11,577	8%	12,090
	8353	8354	Express Lanes										103,314
17			**TOTAL**	**116,525**	**242,934**	**123,050**	**122,728**	**0%**	**196,444**	**60%**	**250,470**	**104%**	**287,319**
18	4200	4125	E. Lake Sammamish Pkwy S	14,756	19,963	22,992	23,067	0%	22,978	0%	23,072	0%	23,022
	1689	1704	Issaquah Pine Lake Rd	1,339	2,726	7,694	7,621	-1%	7,294	-5%	6,963	-10%	6,842
	1689	4176	Issaquah Fall City Rd	25,497	50,123	52,324	52,360	0%	52,023	-1%	52,272	0%	52,330
18			**TOTAL**	**41,592**	**72,811**	**83,010**	**83,048**	**0%**	**82,295**	**-1%**	**82,306**	**-1%**	**82,194**
19	4187	4185	328th Ave SE	36	-	891	882	-1%	411	-54%	308	-65%	277
	4187	2578	Preston - Fall City Rd SE	5,921	6,215	11,368	11,381	0%	9,921	-13%	8,991	-21%	8,530
	2504	2579	SR 202	7,375	13,803	24,312	24,338	0%	24,342	0%	24,489	1%	24,408
19			**TOTAL**	**13,332**	**20,018**	**36,571**	**36,601**	**0%**	**34,674**	**-5%**	**33,787**	**-8%**	**33,215**
20	1450	2685	SR 99	34,246	48,161	57,906	57,882	0%	56,792	-2%	56,925	-2%	56,309
	3183	3184	I-5	202,523	313,112	242,088	241,874	0%	252,022	4%	244,760	1%	231,925
	2964	2956	68th Ave S	14,561	13,527	21,085	20,975	-1%	22,364	6%	21,614	3%	21,557
	1460	1459	Rainier Ave S	24,178	28,655	38,362	38,575	1%	40,381	5%	39,275	2%	39,586
	1475	1477	Main Ave S	10,662	4,525	17,525	17,339	-1%	17,433	-1%	16,877	-4%	15,930
	3177	3178	I-405 GP	117,782	250,128	137,573	137,720	0%	198,767	44%	251,974	83%	177,642
	4802	4803	I-405 HOV	1,679	2,258	10,537	9,996	-5%	10,339	-2%	11,361	8%	11,599
	8353	8354	Express Lanes										103,314
	1670	3104	SR 169	30,056	34,264	50,831	49,216	-3%	49,036	-4%	46,167	-9%	53,782
20			**TOTAL**	**435,687**	**694,630**	**575,906**	**573,578**	**0%**	**647,134**	**12%**	**688,953**	**20%**	**711,644**
21	1351	1443	SR 99	61,194	51,097	78,780	78,630	0%	73,266	-7%	71,793	-9%	71,814
	3057	3180	I-5 GP	168,955	324,074	224,842	223,125	-1%	225,399	0%	222,263	-1%	223,048
	4842	4843	I-5 HOV	2,930	3,647	19,944	19,942	0%	19,420	-3%	19,254	-3%	19,308
	1348	2873	Orilla Rd	26,975	41,558	39,922	39,897	0%	43,835	10%	41,659	4%	41,699
	2755	1424	SR 181	37,123	15,555	54,444	54,411	0%	45,104	-17%	47,048	-14%	47,774
	3352	3195	SR 167	95,281	207,529	109,527	111,156	1%	156,051	42%	163,980	50%	165,270
	4928	4929	Talbot Rd S	1,117	2,366	6,848	5,861	-14%	6,979	2%	6,707	-2%	7,200
	1654	3915	SR 515	28,963	23,022	41,028	41,330	1%	40,723	-1%	40,654	-1%	40,190
	1653	3913	140th Ave SE	12,898	18,060	24,980	25,034	0%	25,652	3%	25,869	4%	25,297
	4294	6962	148th Ave SE	4,477	4,952	7,491	7,677	2%	7,346	-2%	7,841	5%	7,707
	2515	2514	Petrovitsky Rd	18,573	31,516	21,899	22,037	1%	21,110	-4%	21,352	-2%	23,409
21			**TOTAL**	**458,484**	**723,374**	**629,705**	**629,099**	**0%**	**664,886**	**6%**	**668,419**	**6%**	**672,715**

22	6965	5218	SW 43rd St	41,180	60,018	37,016	36,928	0%	39,801	8%	39,310	6%	38,599
	1461	1415	SW Grady Way	12,819	41,999	16,472	16,579	1%	16,329	-1%	15,531	-6%	15,010
	3175	3176	I-405 GP	100,675	255,448	105,872	104,216	-2%	166,784	58%	216,418	104%	156,996
	4800	4801	I-405 HOV	2,342	6,848	14,108	14,334	2%	14,657	4%	15,275	8%	14,880
	8354	8355	Express Lanes										78,373
	1416	2956	Martin Luther King Jr Way	15,837	2,763	27,268	26,901	-1%	19,616	-28%	16,732	-39%	16,385
	1420	5665	Ranier Av S	6,055	6,633	9,550	9,620	1%	8,833	-8%	8,293	-13%	7,891
	1454	1648	Renton Av S	23,658	20,345	35,466	35,496	0%	32,646	-8%	30,642	-14%	29,433
22			**TOTAL**	**202,565**	**394,054**	**245,752**	**244,074**	**-1%**	**298,665**	**22%**	**342,201**	**39%**	**357,567**
23	1628	1629	15th Ave W (Ballard Bridge)	36,680	55,729	56,632	56,616	0%	55,955	-1%	55,427	-2%	55,168
	1623	1959	Fremont Ave (Fremont Bridge	36,186	50,130	48,713	48,765	0%	48,149	-1%	47,890	-2%	47,862
	3222	3223	SR-99 (Aurora Bridge)	77,375	42,777	112,960	112,721	0%	108,666	-4%	105,230	-7%	101,774
	3260	3261	I-5 (Ship Canal Bridge)	209,414	380,900	248,881	245,235	-1%	241,973	-3%	238,896	-4%	232,797
	3351	3253	I-5 Express	60,766	23,846	50,246	54,636	9%	56,170	12%	52,222	4%	54,697
	1605	1960	Eastlake Av (Univ. Bridge)	25,335	13,035	39,874	39,703	0%	38,891	-2%	37,964	-5%	37,044
	3319	1635	Montlake Ave (Montlake Brid	40,355	32,299	52,389	52,021	-1%	51,800	-1%	50,747	-3%	49,854
	3112	3132	I-405	146,188	221,128	150,513	150,526	0%	189,845	26%	225,681	50%	164,715
	4814	4815	I-405 HOV	1,258	4,549	12,594	12,067	-4%	12,280	-2%	12,098	-4%	12,439
	8352	8353	Express Lanes										95,343
	2947	2214	148th Ave NE	26,235	5,277	30,246	26,618	-12%	29,267	-3%	27,237	-10%	27,433
	3729	3158	SR520	62,892	137,520	77,378	79,880	3%	75,835	-2%	76,571	-1%	74,000
	4744	4956	SR520 HOV		1,593	2,082	2,034	-2%	2,066	-1%	2,121	2%	2,077
	4136	4137	E. Lake Sammamish	12,312	19,783	16,450	16,500	0%	16,479	0%	16,214	-1%	16,275
	2572	2565	Sahalee Wy NE	12,440	20,387	21,239	21,338	0%	20,911	-2%	20,169	-5%	20,094
	2216	4143	SR 202	4,626	17,889	12,289	12,395	1%	11,784	-4%	11,460	-7%	11,426
	1957	4262	SR 203	5,665	4,975	20,990	21,086	0%	18,775	-11%	17,985	-14%	17,321
23			**TOTAL**	**757,727**	**1,031,818**	**953,477**	**952,140**	**0%**	**978,847**	**3%**	**997,911**	**5%**	**1,020,319**
24	2008	2574	Meridian (80th Ave NE)	12,783	15,135	17,262	17,185	0%	17,595	2%	18,249	6%	13,705
	2262	3138	SR 527	25,932	32,484	31,771	31,292	-2%	35,035	10%	35,877	13%	35,331
	3602	3138	I-405	92,822	182,324	102,437	102,245	0%	139,079	36%	167,915	64%	116,433
	4992	4937	I-405 HOV		2,134	6,376	6,218	-2%	6,731	6%	6,834	7%	6,825
	8350	8351	Express Lanes										74,780
	2263	2760	45th Ave SE	6,419	8,463	10,416	10,422	0%	8,841	-15%	7,763	-25%	7,557
	2264	2390	SR 9	24,356	32,486	40,173	39,903	-1%	39,074	-3%	40,035	0%	39,486
	3146	3147	SR 522	33,673	54,243	62,157	62,417	0%	64,467	4%	66,676	7%	66,914
	4287	4286	75th Ave SE (156th Ave NE)	893	219	2,808	2,795	0%	3,461	23%	3,008	7%	2,873
24			**TOTAL**	**196,878**	**327,486**	**273,399**	**272,478**	**0%**	**314,283**	**15%**	**346,356**	**27%**	**363,903**
25	2230	2231	Market St	20,864	43,280	54,558	54,377	0%	49,343	-10%	48,444	-11%	48,010
	3133	3334	I-405	150,962	264,974	171,920	171,285	0%	216,150	26%	254,644	48%	200,368
	4816	4817	I-405 HOV	1,212	4,479	11,614	11,228	-3%	11,449	-1%	11,348	-2%	11,698
	8351	8352	Express Lanes										82,520
	4008	4010	124th Ave NE	295	-	4,785	4,809	0%	2,635	-45%	585	-88%	450
	2228	2906	132nd Ave NE	8	-	2,494	2,490	0%	1,698	-32%	701	-72%	377
	2225	2281	Willows Rd	70	2,968	2,573	2,974	16%	2,117	-18%	1,806	-30%	1,861
	6617	4561	154th Ave NE	11,962	217	17,029	16,851	-1%	14,229	-16%	11,673	-31%	11,407
	5256	6619	SR 202	6,891	17,786	11,834	11,803	0%	12,069	2%	11,410	-4%	12,701
	3847	3848	166th Ave NE	2,625	-	16,109	16,445	2%	15,373	-5%	13,743	-15%	14,075
	2582	5254	Avondale Rd NE	27,386	56,836	26,389	25,884	-2%	25,598	-3%	25,025	-5%	23,821
25			**TOTAL**	**222,276**	**390,539**	**319,305**	**318,147**	**0%**	**350,660**	**10%**	**379,380**	**19%**	**407,286**

26	4134	4135	E. Lake Sammamish Pkwy S	203	-	793	816	3%	787	-1%	777	-2%	807
	4131	4135	L. Thompson Rd (212th Av S	9,134	14,756	12,208	12,228	0%	12,190	0%	12,104	-1%	12,082
	4199	1709	228th Ave SE	3,348	5,601	13,732	13,708	0%	13,277	-3%	12,916	-6%	12,684
	4195	1707	SR 202	7,046	15,270	17,195	17,342	1%	16,243	-6%	16,205	-6%	16,164
	2579	1956	SR 203	6,225	4,263	19,576	19,553	0%	17,781	-9%	16,743	-14%	16,076
26			**TOTAL**	**25,956**	**39,891**	**63,503**	**63,647**	**0%**	**60,278**	**-5%**	**58,745**	**-7%**	**57,814**
27	3165	3166	SR 506	48,799	59,843	70,690	70,550	0%	68,603	-3%	67,850	-4%	67,354
	3198	3199	SR 99	37,354	35,143	60,936	60,659	0%	61,265	1%	59,801	-2%	57,374
	1540	2784	16th Ave S Bridge	34,520	38,978	40,967	40,828	0%	39,421	-4%	38,645	-6%	38,210
	1517	5535	Marginal Way	4,858	2,654	10,529	10,539	0%	8,282	-21%	6,896	-35%	6,301
	1516	5534	Airport Way	10,651	12,487	12,660	12,656	0%	12,536	-1%	12,508	-1%	12,422
	3187	3575	I-5	169,087	256,776	206,084	206,083	0%	196,827	-4%	184,892	-10%	177,921
	4851	4938	I-5 HOV	2,359	4,521	16,419	16,663	1%	16,868	3%	16,642	1%	16,597
	1510	5662	Martin Luther King Jr. Way	15,565	16,798	22,034	21,943	0%	20,306	-8%	19,909	-10%	19,754
	5660	5661	Renton Ave	21,546	20,610	26,093	26,060	0%	24,456	-6%	23,459	-10%	22,747
	1512	5664	Rainier Ave	7,615	4,859	11,656	11,658	0%	10,760	-8%	10,055	-14%	9,560
27			**TOTAL**	**352,355**	**452,668**	**478,067**	**477,638**	**0%**	**459,324**	**-4%**	**440,654**	**-8%**	**428,239**
28	1573	3207	E Marginal Way	10,795	7,765	14,813	14,810	0%	14,907	1%	15,046	2%	15,361
	1587	3868	Martin Luther King Way S	4,241	4,285	6,561	6,592	0%	6,252	-5%	5,825	-11%	5,646
	1577	2568	Beacon Av S	25,379	31,836	29,394	28,616	-3%	26,600	-10%	26,277	-11%	25,100
	1580	1575	4th Av S	23,987	9,376	44,784	44,534	-1%	41,633	-7%	39,225	-12%	37,242
	1581	1574	1st Av S	6,032	16,194	33,073	33,094	0%	31,954	-3%	32,068	-3%	31,215
	1563	1783	Airport Way S	2,497	4,781	4,713	4,675	-1%	3,974	-16%	3,650	-23%	3,588
	1578	1584	Ranier Av S	20,689	15,354	27,898	27,874	0%	26,314	-6%	24,881	-11%	23,504
	3193	3194	I-5	218,034	379,939	242,233	242,518	0%	238,599	-2%	232,757	-4%	231,163
	3208	3257	SR-99 Viaduct	78,907	65,708	96,798	96,421	0%	94,413	-2%	92,128	-5%	90,168
	4857	4858	I-5 HOV	2,577	4,295	20,588	20,788	1%	20,899	2%	20,770	1%	20,784
	5572	5573	6th Av S	15,832	46,503	15,676	16,712	7%	15,725	0%	14,997	-4%	14,089
	1562	2567	15th Ave S	17,732	13,341	23,377	23,349	0%	21,335	-9%	21,328	-9%	21,684
28			**TOTAL**	**426,701**	**599,379**	**559,908**	**559,983**	**0%**	**542,605**	**-3%**	**528,951**	**-6%**	**519,543**
29	1614	1617	Elliot Av W	10,365	7,546	27,679	27,653	0%	27,685	0%	27,620	0%	27,587
	1619	2801	Queen Anne Av N	20,991	36,546	19,051	19,104	0%	18,991	0%	18,807	-1%	18,701
	1908	5336	5th Av N	17,599	18,876	13,501	13,548	0%	13,448	0%	12,907	-4%	12,930
	3220	3221	SR 99	73,736	39,192	98,437	98,396	0%	94,867	-4%	91,694	-7%	88,151
	1639	5337	Dexter Av N	3,148	34,141	33,192	33,229	0%	33,224	0%	33,207	0%	33,083
	5334	1912	Westlake Av	4,708	8,352	15,175	15,298	1%	15,685	3%	16,125	6%	16,191
	1607	1606	Eastlake Av E	2,838	655	14,224	14,153	-1%	13,599	-4%	12,759	-10%	12,333
	3258	3237	I-5	215,284	376,247	250,357	246,460	-2%	239,000	-5%	234,560	-6%	227,889
	4888	4876	I-5 Express Lanes	708	223	8,204	8,385	2%	8,109	-1%	7,404	-10%	7,547
	1927	2810	Harvard Ave E	8,566	723	684	778	14%	717	5%	633	-7%	627
	1929	1603	10th Av E	3,389	3,532	16,339	16,069	-2%	15,375	-6%	15,241	-7%	14,516
	1600	1601	24th Av E (23rd Av E)	13,640	23,643	35,286	35,148	0%	34,645	-2%	34,476	-2%	33,890
	1597	5346	Lake Washington Blvd	10,576	12,979	12,059	12,068	0%	12,173	1%	12,297	2%	12,268
	1597	1596	Madison St	18,951	22,762	22,904	22,912	0%	22,959	0%	22,978	0%	22,987
29			**TOTAL**	**404,497**	**585,417**	**567,092**	**563,201**	**-1%**	**550,479**	**-3%**	**540,708**	**-5%**	**528,701**

30	5579	2842	3rd Av NW	1,438	1,366	2,964	2,950	0%	2,377	-20%	2,017	-32%	1,835
	2113	2103	Greenwood Av N	10,198	7,440	23,060	23,059	0%	21,948	-5%	21,223	-8%	20,354
	2112	2111	SR-99 (Aurora)	47,836	37,347	68,317	68,065	0%	63,370	-7%	60,023	-12%	57,865
	2110	2846	Meridian Av N	10,917	16,445	14,909	14,824	-1%	14,807	-1%	14,854	0%	14,896
	2100	2199	Roosevelt Wy N	8,073	23,443	20,224	20,065	-1%	20,271	0%	20,550	2%	20,878
	3271	3270	I-5	182,477	312,563	209,402	209,533	0%	208,131	-1%	202,541	-3%	196,997
	4882	4881	I-5 HOV	1,249	213	14,295	14,314	0%	14,157	-1%	14,166	-1%	14,271
	2109	2100	5th Av NE	4,216	1,155	10,122	10,034	-1%	9,736	-4%	9,032	-11%	8,907
	2099	2104	15th Av NE	21,945	20,264	34,749	34,534	-1%	32,623	-6%	30,423	-12%	29,404
	5435	5561	20th Av NE	343	-	2,489	2,412	-3%	2,115	-15%	1,914	-23%	1,876
	5466	5563	30th Av NE	9,925	10,843	12,936	12,841	-1%	12,357	-4%	11,902	-8%	11,656
	2106	2105	SR-522	38,619	24,515	57,268	57,195	0%	54,823	-4%	52,906	-8%	51,549
30			**TOTAL**	**337,237**	**455,594**	**470,734**	**469,826**	**0%**	**456,715**	**-3%**	**441,551**	**-6%**	**430,488**

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Table 8a – PM Peak Person Volumes at Selected Screenlines

(Bothell - South of the County from 80th Ave. NE to SR 522)									
Theme	**I-405**				**Parallel Arterials**				**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Transit**	**Non-HOV**	**HOV**	**Commercial**	**Transit**	
2020 No-Action (October 2000)	32,900	8,600	2,100	400	49,000	2,900	1,800	200	97,900
2020 Alternative 3 (October 2000)	57,200	9,200	3,700	800	49,900	2,600	1,900	100	125,400
Changes from 2020 No-Action	***24,300***	***600***	***1,600***	***400***	***900***	***-300***	***100***	***-100***	***27,500***
2020 Baseline (March 2002)	39,300	8,600	2,500	600	47,700	2,900	1,700	300	103,600
2020 Alternative 3 (March 2002)	61,900	8,900	3,900	1,200	47,000	2,600	1,800	300	127,600
Changes from 2020 Baseline	***22,600***	***300***	***1,400***	***600***	***-700***	***-300***	***100***	***0***	***24,000***
2020 Preferred Alternative (March 2002)	63,400	8,600	4,000	1,200	47,400	2,600	1,800	300	129,300
Changes from 2020 Baseline	***24,100***	***0***	***1,500***	***600***	***-300***	***-300***	***100***	***0***	***25,700***

Table 8b – Comparison of PM Peak Period Passenger Volumes – Bellevue Screenline

(Bellevue - South of NE 8th St from Bellevue Way to 156th Ave.)									
Theme	**I-405**				**Parallel Arterials**				**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Transit**	**Non-HOV**	**HOV**	**Commercial**	**Transit**	
2020 No-Action (October 2000)	53,800	19,300	3,200	300	64,000	1,000	3,400	3,600	148,600
2020 Alternative 3 (October 2000)	92,200	19,900	6,200	6,800	55,600	1,300	3,200	1,800	187,000
Changes from 2020 No-Action	***38,400***	***600***	***3,000***	***6,500***	***-8,400***	***300***	***-200***	***-1,800***	***38,400***
2020 Baseline (March 2002)	73,600	18,900	4,400	400	56,800	1,000	3,000	4,300	162,400
2020 Alternative 3 (March 2002)	113,900	20,500	7,500	9,200	47,700	1,300	2,600	1,200	203,900
Changes from 2020 Baseline	***40,300***	***1,600***	***3,100***	***8,800***	***-9,100***	***300***	***-400***	***-3,100***	***41,500***
2020 Preferred Alternative (March 2002)	115,900	21,200	7,700	5,200	48,600	1,000	2,700	2,800	205,100
Changes from 2020 Baseline	***42,300***	***2,300***	***3,300***	***4,800***	***-8,200***	***0***	***-300***	***-1,500***	***42,700***

Table 8c – Comparison of PM Peak Period Passenger Volumes – Renton Screenline

(Renton - West of Renton CBD from SR 900 to SW 43rd St.)									
Theme	I-405				Parallel Arterials				Screenline Total
	Non-HOV	HOV	Commercial	Transit	Non-HOV	HOV	Commercial	Transit	
2020 No-Action (October 2000)	30,000	20,800	2,100	200	48,300	1,300	3,000	2,900	108,600
2020 Alternative 3 (October 2000)	68,400	20,500	4,500	700	43,800	1,000	2,800	1,400	143,100
Changes from 2020 No-Action	***38,400***	***-300***	***2,400***	***500***	***-4,500***	***-300***	***-200***	***-1,500***	***34,500***
2020 Baseline (March 2002)	43,000	19,900	2,700	200	48,600	1,300	3,000	2,400	121,100
2020 Alternative 3 (March 2002)	77,900	20,500	4,800	100	41,100	1,000	2,600	2,700	150,700
Changes from 2020 Baseline	***34,900***	***600***	***2,100***	***-100***	***-7,500***	***-300***	***-400***	***300***	***29,600***
2020 Preferred Alternative (March 2002)	78,700	21,200	5,000	100	40,900	1,000	2,600	2,500	152,000
Changes from 2020 Baseline	***35,700***	***1,300***	***2,300***	***-100***	***-7,700***	***-300***	***-400***	***100***	***30,900***

Table 9a – Comparison of Daily Passenger Volumes – Bothell Screenline

(Bothell - South of the County from 80th Ave. NE to SR 522)									
Theme	I-405				Parallel Arterials				Screenline Total
	Non-HOV	HOV	Commercial	Transit	Non-HOV	HOV	Commercial	Transit	
2020 No-Action (October 2000)	115,000	20,200	16,200	1,100	153,400	7,300	12,600	500	326,300
2020 Alternative 3 (October 2000)	186,800	21,800	27,500	2,700	153,000	7,000	12,700	300	411,800
Changes from 2020 No-Action	***71,800***	***1,600***	***11,300***	***1,600***	***-400***	***-300***	***100***	***-200***	***85,500***
2020 Baseline (March 2002)	146,000	19,600	21,100	1,500	143,000	7,600	11,600	800	351,200
2020 Alternative 3 (March 2002)	222,000	20,500	33,200	3,600	142,800	7,300	12,000	800	442,200
Changes from 2020 Baseline	***76,000***	***900***	***12,100***	***2,100***	***-200***	***-300***	***400***	***0***	***91,000***
2020 Preferred Alternative (March 2002)	219,800	20,200	32,800	3,500	144,000	7,300	12,100	700	440,400
Changes from 2020 Baseline	***73,800***	***600***	***11,700***	***2,000***	***1,000***	***-300***	***500***	***-100***	***89,200***

Table 9b – Comparison of Daily Passenger Volumes – Bellevue Screenline

(Bellevue - South of NE 8th St from Bellevue Way to 156th Ave.)									
Theme	**I-405**				**Parallel Arterials**				**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Transit**	**Non-HOV**	**HOV**	**Commercial**	**Transit**	
2020 No-Action (October 2000)	183,900	48,200	25,700	800	186,800	2,300	23,500	12,900	484,100
2020 Alternative 3 (October 2000)	308,100	48,600	48,000	23,400	146,500	3,200	19,600	6,500	603,900
Changes from 2020 No-Action	***124,200***	***400***	***22,300***	***22,600***	***-40,300***	***900***	***-3,900***	***-6,400***	***119,800***
2020 Baseline (March 2002)	274,300	46,000	38,300	1,000	143,300	2,300	17,600	15,000	537,800
2020 Alternative 3 (March 2002)	392,900	49,200	61,000	27,200	116,700	2,300	13,600	4,200	667,100
Changes from 2020 Baseline	***118,600***	***3,200***	***22,700***	***26,200***	***-26,600***	***0***	***-4,000***	***-10,800***	***129,300***
2020 Preferred Alternative (March 2002)	403,000	50,400	63,200	15,700	117,100	2,300	13,600	8,900	674,200
Changes from 2020 Baseline	***128,700***	***4,400***	***24,900***	***14,700***	***-26,200***	***0***	***-4,000***	***-6,100***	***136,400***

Table 9c: Comparison of Daily Passenger Volumes – Renton Screenline

(Renton - West of Renton CBD from SR 900 to SW 43rd St.)									
Theme	**I-405**				**Parallel Arterials**				**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Transit**	**Non-HOV**	**HOV**	**Commercial**	**Transit**	
2020 No-Action (October 2000)	116,200	47,900	17,700	600	139,800	3,200	19,900	8,600	353,900
2020 Alternative 3 (October 2000)	239,400	48,200	36,500	2,800	123,200	1,900	17,400	4,400	473,800
Changes from 2020 No-Action	***123,200***	***300***	***18,800***	***2,200***	***-16,600***	***-1,300***	***-2,500***	***-4,200***	***119,900***
2020 Baseline (March 2002)	173,100	47,600	24,300	600	142,000	3,200	19,900	7,400	418,100
2020 Alternative 3 (March 2002)	282,300	49,500	41,700	100	123,600	2,900	17,100	8,500	525,700
Changes from 2020 Baseline	***109,200***	***1,900***	***17,400***	***-500***	***-18,400***	***-300***	***-2,800***	***1,100***	***107,600***
2020 Preferred Alternative (March 2002)	286,400	51,100	43,300	100	122,700	2,900	17,000	8,100	531,600
Changes from 2020 Baseline	***113,300***	***3,500***	***19,000***	***-500***	***-19,300***	***-300***	***-2,900***	***700***	***113,500***

Table 10a – Comparison of PM Peak Period Volumes – Bothell Screenline

(Bothell - South of the County from 80th Ave. NE to SR 522)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	24,700	2,700	2,100	36,800	900	1,800	69,000
2020 Alternative 3 (October 2000)	43,000	2,900	3,700	37,500	800	1,900	89,800
Change from 2020 No-Action	***18,300***	***200***	***1,600***	***700***	***-100***	***100***	***20,800***
2020 Baseline (March 2002)	29,500	2,700	2,500	35,800	900	1,700	73,100
2020 Alternative 3 (March 2002)	46,500	2,800	3,900	35,300	800	1,800	91,100
Change from 2020 Baseline	***17,000***	***100***	***1,400***	***-500***	***-100***	***100***	***18,000***
2020 Preferred Alternative (March 2002)	47,600	2,700	4,000	35,600	800	1,800	92,500
Change from 2020 Baseline	***18,100***	***0***	***1,500***	***-200***	***-100***	***100***	***19,400***

Table 10b – Comparison of PM Peak Period Vehicle Volumes – Bellevue Screenline

(Bellevue - South of NE 8th St from Bellevue Way to 156th Ave.)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	40,400	6,100	3,200	48,100	300	3,400	101,500
2020 Alternative 3 (October 2000)	69,300	6,300	6,200	41,800	400	3,200	127,200
Change from 2020 No-Action	***28,900***	***200***	***3,000***	***-6,300***	***100***	***-200***	***25,700***
2020 Baseline (March 2002)	55,300	6,000	4,400	42,700	300	3,000	111,700
2020 Alternative 3 (March 2002)	85,600	6,500	7,500	35,800	400	2,600	138,400
Change from 2020 Baseline	***30,300***	***500***	***3,100***	***-6,900***	***100***	***-400***	***26,700***
2020 Preferred Alternative (March 2002)	87,100	6,700	7,700	36,500	300	2,700	141,000
Change from 2020 Baseline	***31,800***	***700***	***3,300***	***-6,200***	***0***	***-300***	***29,300***

Table 10c – Comparison of PM Peak Period Vehicle Volumes – Renton Screenline

(Renton - West of Renton CBD from SR 900 to SW 43rd St.)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	22,500	6,600	2,100	36,300	400	3,000	70,900
2020 Alternative 3 (October 2000)	51,400	6,500	4,500	32,900	300	2,800	98,400
Change from 2020 No-Action	***28,900***	***-100***	***2,400***	***-3,400***	***-100***	***-200***	***27,500***
2020 Baseline (March 2002)	32,300	6,300	2,700	36,500	400	3,000	81,200
2020 Alternative 3 (March 2002)	58,500	6,500	4,800	30,900	300	2,600	103,600
Change from 2020 Baseline	***26,200***	***200***	***2,100***	***-5,600***	***-100***	***-400***	***22,400***
2020 Preferred Alternative (March 2002)	59,100	6,700	5,000	30,700	300	2,600	104,400
Change from 2020 Baseline	***26,800***	***400***	***2,300***	***-5,800***	***-100***	***-400***	***23,200***

Table 11a – Comparison of Daily Vehicle Volumes – Bothell Screenline

(Bothell - South of the County from 80th Ave. NE to SR 522)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	86,400	6,400	16,200	115,300	2,300	12,600	239,200
2020 Alternative 3 (October 2000)	140,400	6,900	27,500	115,000	2,200	12,700	304,700
Change from 2020 No-Action	***54,000***	***500***	***11,300***	***-300***	***-100***	***100***	***65,500***
2020 Baseline (March 2002)	109,700	6,200	21,100	107,500	2,400	11,600	258,500
2020 Alternative 3 (March 2002)	166,900	6,500	33,200	107,300	2,300	12,000	328,200
Change from 2020 Baseline	***57,200***	***300***	***12,100***	***-200***	***-100***	***400***	***69,700***
2020 Preferred Alternative (March 2002)	165,200	6,400	32,800	108,200	2,300	12,100	327,000
Change from 2020 Baseline	***55,500***	***200***	***11,700***	***700***	***-100***	***500***	***68,500***

Table 11b – Comparison of Daily Vehicle Volumes – Bellevue Screenline

(Bellevue - South of NE 8th St from Bellevue Way to 156th Ave.)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	138,200	15,300	25,700	140,400	700	23,500	343,800
2020 Alternative 3 (October 2000)	231,600	15,400	48,000	110,100	1,000	19,600	425,700
Change from 2020 No-Action	***93,400***	***100***	***22,300***	***-30,300***	***300***	***-3,900***	***81,900***
2020 Baseline (March 2002)	206,200	14,600	38,300	107,700	700	17,600	385,100
2020 Alternative 3 (March 2002)	295,400	15,600	61,000	87,700	700	13,600	474,000
Change from 2020 Baseline	***89,200***	***1,000***	***22,700***	***-20,000***	***0***	***-4,000***	***88,900***
2020 Preferred Alternative (March 2002)	303,000	16,000	63,200	88,000	700	13,600	484,500
Change from 2020 Baseline	***96,800***	***1,400***	***24,900***	***-19,700***	***0***	***-4,000***	***99,400***

Table 11c – Comparison of Daily Vehicle Volumes – Renton Screenline

(Renton - West of Renton CBD from SR 900 to SW 43rd St.)							
Theme	**I-405**			**Parallel Arterials**			**Screenline Total**
	Non-HOV	**HOV**	**Commercial**	**Non-HOV**	**HOV**	**Commercial**	
2020 No-Action (October 2000)	87,300	15,200	17,700	105,100	1,000	19,900	246,200
2020 Alternative 3 (October 2000)	180,000	15,300	36,500	92,600	600	17,400	342,400
Change from 2020 No-Action	***92,700***	***100***	***18,800***	***-12,500***	***-400***	***-2,500***	***96,200***
2020 Baseline (March 2002)	130,100	15,100	24,300	106,700	1,000	19,900	297,100
2020 Alternative 3 (March 2002)	212,200	15,700	41,700	92,900	900	17,100	380,500
Change from 2020 Baseline	***82,100***	***600***	***17,400***	***-13,800***	***-100***	***-2,800***	***83,400***
2020 Preferred Alternative (March 2002)	215,300	16,200	43,300	92,200	900	17,000	384,900
Change from 2020 Baseline	***85,200***	***1,100***	***19,000***	***-14,500***	***-100***	***-2,900***	***87,800***

Table 12 – Comparison of Daily Vehicle Volumes on I-405 at Screenline Locations

Table 1
Comparison of Daily Vehicle Volumes on I-405 at Screenline Locations
I-405 Corridor Program

Screenline Number	Location on I-405	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	Difference (Alt 3 - NA)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	Difference (Alt 3 - Base)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
	On I-405								
1	South of SR 524	93,317	155,703	62,386	114,214	179,709	65,495	179,709	184,131
24	South of 228th St SE	108,812	174,749	65,937	136,819	209,574	72,755	209,574	211,578
13	South of County Line	108,812	174,579	65,767	136,819	206,336	69,517	206,336	204,256
14	South of NE 124th St	153,839	245,160	91,320	199,614	285,755	86,141	285,755	285,446
25	North of NE 85th St	183,534	265,992	82,459	222,717	313,080	90,363	313,080	313,119
15	South of NE 70th St	163,108	237,779	74,672	192,486	274,096	81,610	274,096	279,168
16	South of Main St (Bellevue)	179,002	294,826	115,824	258,996	371,822	112,826	371,822	382,053
17	South of SE 60th St	123,050	250,470	127,420	178,587	280,231	101,644	280,231	306,740
20	South of SR 169	148,110	263,335	115,224	184,563	280,309	95,746	280,309	289,730
22	East of SR 181	119,980	231,693	111,712	169,326	269,457	100,131	269,457	274,613
	On I-5								
a	King-Snoh. County Line	196,721	188,272	(8,449)	191,695	174,761	(16,934)	174,761	171,394
b	Ship Canal	299,127	291,118	(8,009)	350,651	333,571	(17,080)	333,571	331,178
b	South Seattle	222,503	201,533	(20,969)	245,783	226,159	(19,624)	226,159	220,557

Table 13 – Summary Screenlines

Screen No.	2020 No-Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2000)	2020 Preferred Alternative (March 2002)
1	208,684	261,209	220,660	276,913	281,557
2	114,766	125,074	125,393	130,756	130,263
3	178,881	195,183	207,988	216,866	217,303
4	244,390	265,479	267,943	278,892	282,037
5	214,088	257,618	298,248	302,657	300,714
6	238,394	249,980	259,777	278,629	282,368
7	158,413	157,324	184,469	183,299	183,090
8	66,360	63,682	71,257	70,912	70,895
9	55,900	52,089	46,640	45,006	44,957
10	97,581	87,653	103,084	98,283	98,011
11	90,217	90,694	92,909	92,894	92,883
12	361,543	357,368	376,634	369,049	369,024
13	238,893	304,323	258,244	327,821	326,680
14	266,577	331,272	295,423	369,188	377,459
15	448,298	512,912	433,003	500,385	507,988
16	343,457	425,350	384,822	473,713	484,262
17	123,050	250,470	178,587	280,231	306,740
18	83,010	82,306	77,043	76,305	76,317
19	36,571	33,787	20,943	19,251	19,194
20	575,906	688,953	621,434	708,179	713,273
21	629,705	668,419	675,425	683,941	685,829
22	245,752	342,201	296,728	380,163	384,603
23	953,477	997,911	998,552	1,050,003	1,051,382
24	273,399	346,356	290,480	372,962	375,540
25	319,305	379,380	350,478	427,722	431,051
26	63,503	58,745	47,303	43,715	43,669
27	478,067	440,654	485,632	454,601	447,246
28	559,908	528,951	593,477	564,958	558,378
29	567,092	540,708	585,375	560,306	556,652
30	470,734	441,551	465,942	434,108	430,562

Table 14 – Comparative Analysis of Daily Vehicle Volumes – Detailed

PSRC Screen Number	Name of Facility	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
1	SR 522	68,798	64,612	61,560	57,669	57,827
	NE 202nd St	8,039	8,036	7,903	7,661	7,664
	Filbert Rd (SR 524)	38,531	32,858	36,983	31,874	31,936
	I-405 GP	86,736	148,736	108,201	173,378	177,823
	I-405 HOV	6,581	6,967	6,013	6,331	6,307
1	**TOTAL**	**208,684**	**261,209**	**220,660**	**276,913**	**281,557**
2	SR 522	36,280	40,574	38,577	42,766	42,559
	Juanita-Woodinville Wy NE	17,654	14,392	20,078	15,095	15,050
	NE 132nd St	21,116	19,247	15,236	9,295	9,922
	NE 124th St	15,063	25,488	23,753	31,891	31,159
	NE 116th St	24,652	25,373	27,748	31,709	31,573
2	**TOTAL**	**114,766**	**125,074**	**125,393**	**130,756**	**130,263**
3	NE 85th St	13,050	12,121	15,293	18,775	9,088
	Kirkland Wy	19,396	21,053	13,773	15,843	15,319
	NE 68th St	28,331	28,081	36,742	38,807	38,683
	Northrup Wy	25,108	18,640	15,193	14,133	14,439
	SR 520	92,997	115,288	126,988	129,308	129,774
3	**TOTAL**	**178,881**	**195,183**	**207,988**	**216,866**	**217,303**
4	SR 522	102,470	124,390	127,089	131,838	132,507
	NE 160th St	21,639	20,617	15,697	19,767	19,656
	NE 132nd St	24,414	24,263	21,904	24,658	24,569
	Totem Lake Blvd	24,742	25,035	28,002	12,763	14,256
	NE 124th St	44,386	62,064	62,385	82,658	83,048
	NE 116th St	26,740	9,110	12,866	7,208	8,003
4	**TOTAL**	**244,390**	**265,479**	**267,943**	**278,892**	**282,037**
5	NE 85th St	50,131	53,628	48,116	53,750	50,949
	NE 70th St	11,869	13,973	26,786	26,427	27,084
	NE 60th St	4,850	4,103	1,610	1,603	1,542
	SR-520	66,088	110,400	131,692	130,306	131,539
	Northrup Wy	22,483	21,256	34,449	34,166	33,528
	NE Bellevue-Redmond Rd	33,444	32,251	41,599	42,077	41,643
	NE 8th St	25,223	22,006	13,996	14,328	14,428
5	**TOTAL**	**214,088**	**257,618**	**298,248**	**302,657**	**300,714**
6	Lake Hill Connector	34,452	33,248	31,043	33,191	32,828
	I-90 GP	144,924	147,973	163,695	173,639	177,254
	I-90 HOV	6,978	6,993	8,215	8,114	8,147
	Coal Creek Pkwy SE	35,930	53,482	49,351	58,031	58,683
	SE 60th St	16,109	8,284	7,473	5,654	5,457
6	**TOTAL**	**238,394**	**249,980**	**259,777**	**278,629**	**282,368**
7	Woodinville-Duvall Rd	22,641	20,619	19,401	20,673	20,623
	NE 165th St	7,013	5,452	5,698	4,851	4,849
	NE 128th St	18,089	20,189	13,515	16,227	15,390
	NE 116th St	11,098	12,601	5,161	3,763	4,180
	Avondale Wy NE	12,273	12,193	38,010	36,518	36,570
	Redmond Wy (SR 202)	25,791	24,971	40,239	38,708	39,700
	SR 520	61,508	61,300	62,445	62,559	61,778
7	**TOTAL**	**158,413**	**157,324**	**184,469**	**183,299**	**183,090**
8	Novelty Hill Rd	17,096	16,345	19,848	19,988	19,999
	Union Hill Rd	15,736	15,709	14,044	14,117	14,026
	SR 202	12,289	11,460	16,757	16,414	16,490

PSRC Screen Number	Name of Facility	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
	Sahalee Wy NE	21,239	20,169	20,609	20,393	20,380
8	**TOTAL**	**66,360**	**63,682**	**71,257**	**70,912**	**70,895**
9	SR 203	28,542	25,526	18,845	17,453	17,420
	NE Union Hill Rd	5,319	5,308	3,594	3,654	3,567
	NE Ames Lake Rd	9,729	9,517	12,033	11,934	12,017
	Redmond Fall City Rd (SR 202)	12,311	11,738	12,169	11,965	11,954
9	**TOTAL**	**55,900**	**52,089**	**46,640**	**45,006**	**44,957**
10	SR 203	19,576	16,743	8,979	7,085	7,026
	SR 202	20,011	19,191	18,032	17,960	17,950
	Preston-Fall City Rd	12,259	9,298	13,998	12,669	12,633
	I-90	45,735	42,420	62,075	60,569	60,402
10	**TOTAL**	**97,581**	**87,653**	**103,084**	**98,283**	**98,011**
11	SR 202 North Bend Blvd N	27,777	28,032	12,923	12,606	12,588
	I-90	62,440	62,661	79,986	80,288	80,295
11	**TOTAL**	**90,217**	**90,694**	**92,909**	**92,894**	**92,883**
12	SR-522	74,623	69,465	65,410	60,864	60,860
	SR-520	121,407	123,835	139,934	138,407	138,979
	I-90 GP	158,699	156,978	164,359	162,903	162,270
	I-90 HOV	6,815	7,090	6,931	6,875	6,915
12	**TOTAL**	**361,543**	**357,368**	**376,634**	**369,049**	**369,024**
13	80th Ave NE (Meridian Ave S)	9,562	9,353	8,876	8,905	9,238
	SR 527	19,841	15,241	18,212	14,214	14,095
	I-405 GP	102,437	167,745	130,691	199,916	197,871
	I-405 HOV	6,376	6,834	6,128	6,420	6,385
	Express Lanes					
	SR 522	60,237	70,508	35,376	42,222	43,107
	SR 9	40,441	34,643	58,961	56,144	55,984
13	**TOTAL**	**238,893**	**304,323**	**258,244**	**327,821**	**326,680**
14	Juanita Dr NE	17,398	15,874	17,183	16,115	16,110
	120th Ave NE	8,194	4,745	5,586	3,705	3,451
	I-405 GP	142,734	233,879	188,046	274,552	274,243
	I-405 HOV	11,106	11,281	11,568	11,203	11,203
	Express Lanes					
	124th Ave NE	35,604	25,345	26,295	25,514	26,003
	Willows Rd	22,395	26,251	24,282	28,209	36,109
	SR 202	29,147	13,898	22,463	9,890	10,340
14	**TOTAL**	**266,577**	**331,272**	**295,423**	**369,188**	**377,459**
15	Lake Washington Blvd	63,868	61,288	56,904	50,808	51,096
	108th Ave NE	25,402	24,152	26,747	25,689	26,320
	I-405 GP	150,513	225,681	180,222	262,043	267,110
	I-405 HOV	12,594	12,098	12,264	12,053	12,058
	Express Lanes					
	140th Ave NE	17,214	17,962	23,629	21,966	22,805
	148TH AVE NE	30,246	27,237	12,264	10,315	10,801
	156th Ave NE	46,077	43,212	8,460	7,191	7,916
	SR-520	77,378	76,571	88,595	86,961	86,347
	SR-520 HOV	2,082	2,121	3,159	3,273	3,296
	Bellevue Redmond	11,067	10,998	10,082	9,886	9,996
	West Lake Sammamish Pkwy	11,856	11,591	10,677	10,200	10,244
15	**TOTAL**	**448,298**	**512,912**	**433,003**	**500,385**	**507,988**
16	Bellevue Wy SE	24,165	16,824	14,044	10,616	10,882
	108th Ave SE	10,038	7,726	7,485	2,305	2,513
	112th Ave SE	26,144	25,205	17,408	12,084	12,467
	114th Ave SE	15,507	14,728	14,448	13,334	12,955
	I-405 GP	163,758	279,441	244,419	356,252	366,123

PSRC Screen Number	Name of Facility	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
	I-405 HOV Express Lanes	15,244	15,385	14,577	15,570	15,930
	140th Ave SE	22,942	20,399	25,617	22,234	22,252
	148th Ave SE	43,497	26,498	22,310	17,147	17,237
	156th Ave SE	22,162	19,144	24,513	24,171	23,903
16	**TOTAL**	**343,457**	**425,350**	**384,822**	**473,713**	**484,262**
17	I-405	112,294	238,893	167,897	268,317	296,340
	I-405 HOV Express Lanes	10,756	11,577	10,690	11,914	10,400
17	**TOTAL**	**123,050**	**250,470**	**178,587**	**280,231**	**306,740**
18	E. Lake Sammamish Pkwy SE	22,992	23,072	21,639	21,640	21,644
	Issaquah Pine Lake Rd	7,694	6,963	3,812	3,685	3,722
	Issaquah Fall City Rd	52,324	52,272	51,592	50,980	50,952
18	**TOTAL**	**83,010**	**82,306**	**77,043**	**76,305**	**76,317**
19	328th Ave SE	891	308	448	414	414
	Preston - Fall City Rd SE	11,368	8,991	13,550	12,255	12,220
	SR 202	24,312	24,489	6,945	6,582	6,561
19	**TOTAL**	**36,571**	**33,787**	**20,943**	**19,251**	**19,194**
20	SR 99	57,906	56,925	53,133	53,813	53,523
	I-5	242,088	244,760	274,510	259,047	253,089
	68th Ave S	21,085	21,614	19,045	23,152	23,264
	Rainier Ave S	38,362	39,275	31,330	24,568	24,222
	Main Ave S	17,525	16,877	14,392	12,746	13,280
	I-405 GP	137,573	251,974	174,866	269,720	278,802
	I-405 HOV Express Lanes	10,537	11,361	9,697	10,589	10,928
	SR 169	50,831	46,167	44,461	54,544	56,166
20	**TOTAL**	**575,906**	**688,953**	**621,434**	**708,179**	**713,273**
21	SR 99	78,780	71,793	72,132	69,663	69,431
	I-5 GP	224,842	222,263	263,483	260,330	260,799
	I-5 HOV	19,944	19,254	18,123	18,177	18,125
	Orilla Rd	39,922	41,659	47,811	42,868	42,943
	SR 181	54,444	47,048	38,519	41,190	41,640
	SR 167	109,527	163,980	136,938	149,629	149,796
	Talbot Rd S	6,848	6,707	8,188	8,424	8,494
	SR 515	41,028	40,654	37,196	38,631	38,798
	140th Ave SE	24,980	25,869	22,229	21,756	21,813
	148th Ave SE	7,491	7,841	6,987	7,232	7,400
	Petrovitsky Rd	21,899	21,352	23,821	26,041	26,588
21	**TOTAL**	**629,705**	**668,419**	**675,425**	**683,941**	**685,829**
22	SW 43rd St	37,016	39,310	47,279	42,859	42,336
	SW Grady Way	16,472	15,531	22,332	21,554	21,467
	I-405 GP	105,872	216,418	155,117	254,653	259,237
	I-405 HOV Express Lanes	14,108	15,275	14,209	14,804	15,376
	Martin Luther King Jr Way	27,268	16,732	18,335	13,527	13,643
	Ranier Av S	9,550	8,293	8,723	6,798	6,718
	Renton Av S	35,466	30,642	30,734	25,968	25,828
22	**TOTAL**	**245,752**	**342,201**	**296,728**	**380,163**	**384,603**
23	15th Ave W (Ballard Bridge)	56,632	55,427	60,051	59,286	59,240
	Fremont Ave (Fremont Bridge)	48,713	47,890	52,754	52,262	52,329
	SR-99 (Aurora Bridge)	112,960	105,230	83,610	78,594	78,311
	I-5 (Ship Canal Bridge)	248,881	238,896	284,984	270,398	267,675
	I-5 Express	50,246	52,222	65,667	63,173	63,503
	Eastlake Av (Univ. Bridge)	39,874	37,964	27,053	25,895	25,674

PSRC Screen Number	Name of Facility	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
	Montlake Ave (Montlake Bridge)	52,389	50,747	61,290	62,197	61,497
	I-405	150,513	225,681	180,222	262,043	267,110
	I-405 HOV	12,594	12,098	12,264	12,053	12,058
	Express Lanes					
	148th Ave NE	30,246	27,237	12,264	10,315	10,801
	SR520	77,378	76,571	88,595	86,961	86,347
	SR520 HOV	2,082	2,121	3,159	3,273	3,296
	E. Lake Sammamish	16,450	16,214	19,042	18,694	18,675
	Sahalee Wy NE	21,239	20,169	20,609	20,393	20,380
	SR 202	12,289	11,460	16,757	16,414	16,490
	SR 203	20,990	17,985	10,231	8,052	7,996
23	**TOTAL**	**953,477**	**997,911**	**998,552**	**1,050,003**	**1,051,382**
24	Meridian (80th Ave NE)	17,262	18,249	13,635	17,573	17,418
	SR 527	31,771	35,877	31,812	34,207	34,272
	I-405	102,437	167,915	131,036	204,077	206,753
	I-405 HOV	6,376	6,834	5,783	5,497	4,825
	Express Lanes					
	45th Ave SE	10,416	7,763	9,509	8,406	8,343
	SR 9	40,173	40,035	37,675	38,121	38,623
	SR 522	62,157	66,676	58,693	62,098	62,345
	75th Ave SE (156th Ave NE)	2,808	3,008	2,338	2,983	2,961
24	**TOTAL**	**273,399**	**346,356**	**290,480**	**372,962**	**375,540**
25	Market St	54,558	48,444	49,825	46,593	46,510
	I-405	171,920	254,644	211,067	301,662	301,699
	I-405 HOV	11,614	11,348	11,650	11,418	11,420
	Express Lanes					
	124th Ave NE	4,785	585	3,043	333	303
	132nd Ave NE	2,494	701	1,602	136	5
	Willows Rd	2,573	1,806	333	4	473
	154th Ave NE	17,029	11,673	11,937	13,181	13,577
	SR 202	11,834	11,410	11,642	9,211	11,940
	166th Ave NE	16,109	13,743	5,947	4,045	3,628
	Avondale Rd NE	26,389	25,025	43,432	41,139	41,495
25	**TOTAL**	**319,305**	**379,380**	**350,478**	**427,722**	**431,051**
26	E. Lake Sammamish Pkwy SE	793	777	411	397	398
	L. Thompson Rd (212th Av SE)	12,208	12,104	13,747	13,494	13,493
	228th Ave SE	13,732	12,916	8,540	8,246	8,255
	SR 202	17,195	16,205	15,625	14,493	14,496
	SR 203	19,576	16,743	8,979	7,085	7,026
26	**TOTAL**	**63,503**	**58,745**	**47,303**	**43,715**	**43,669**
27	SR 506	70,690	67,850	70,997	68,975	68,761
	SR 99	60,936	59,801	60,342	54,878	54,173
	16th Ave S Bridge	40,967	38,645	38,484	38,443	38,320
	Marginal Way	10,529	6,896	5,775	4,402	4,303
	Airport Way	12,660	12,508	12,337	12,200	12,158
	I-5	206,084	184,892	228,873	209,035	203,934
	I-5 HOV	16,419	16,642	16,910	17,124	16,623
	Martin Luther King Jr. Way	22,034	19,909	19,735	19,361	19,269
	Renton Ave	26,093	23,459	24,762	22,955	22,782
	Rainier Ave	11,656	10,055	7,418	7,228	6,923
27	**TOTAL**	**478,067**	**440,654**	**485,632**	**454,601**	**447,246**
28	E Marginal Way	14,813	15,046	20,532	20,054	19,812
	Martin Luther King Way S	6,561	5,825	4,851	4,513	4,486
	Beacon Av S	29,394	26,277	34,971	32,877	32,766
	4th Av S	44,784	39,225	19,998	17,161	16,745

PSRC Screen Number	Name of Facility	2020 No Action (October 2000)	2020 Alternative 3 (October 2000)	2020 Baseline (March 2002)	2020 Alternative 3 (March 2002)	2020 Preferred Alternative (March 2002)
	1st Av S	33,073	32,068	16,188	14,671	14,385
	Airport Way S	4,713	3,650	1,835	1,631	1,589
	Ranier Av S	27,898	24,881	22,396	20,254	19,921
	I-5	242,233	232,757	302,152	289,231	284,748
	SR-99 Viaduct	96,798	92,128	102,033	96,454	96,125
	I-5 HOV	20,588	20,770	21,948	21,832	21,605
	6th Av S	15,676	14,997	28,684	28,846	28,801
	15th Ave S	23,377	21,328	17,888	17,434	17,397
28	**TOTAL**	**559,908**	**528,951**	**593,477**	**564,958**	**558,378**
29	Elliot Av W	27,679	27,620	27,446	26,900	26,804
	Queen Anne Av N	19,051	18,807	22,702	22,617	22,317
	5th Av N	13,501	12,907	13,349	13,208	13,178
	SR 99	98,437	91,694	80,455	76,292	76,259
	Dexter Av N	33,192	33,207	34,171	34,307	34,459
	Westlake Av	15,175	16,125	13,286	13,661	13,689
	Eastlake Av E	14,224	12,759	4,868	4,482	4,499
	I-5	250,357	234,560	303,825	286,769	283,273
	I-5 Express Lanes	8,204	7,404	8,069	7,736	7,914
	Harvard Ave E	684	633	4,211	3,968	3,955
	10th Av E	16,339	15,241	9,792	8,326	8,145
	24th Av E (23rd Av E)	35,286	34,476	29,753	28,636	28,718
	Lake Washington Blvd	12,059	12,297	10,294	10,226	10,263
	Madison St	22,904	22,978	23,153	23,178	23,180
29	**TOTAL**	**567,092**	**540,708**	**585,375**	**560,306**	**556,652**
30	3rd Av NW	2,964	2,017	2,929	2,068	2,010
	Greenwood Av N	23,060	21,223	21,003	20,024	19,903
	SR-99 (Aurora)	68,317	60,023	53,370	48,591	48,357
	Meridian Av N	14,909	14,854	13,836	13,873	13,884
	Roosevelt Wy N	20,224	20,550	19,171	19,549	19,785
	I-5	209,402	202,541	254,158	235,924	232,930
	I-5 HOV	14,295	14,166	13,974	13,894	14,018
	5th Av NE	10,122	9,032	5,284	4,538	4,403
	15th Av NE	34,749	30,423	26,598	24,855	24,876
	20th Av NE	2,489	1,914	1,669	1,377	1,312
	30th Av NE	12,936	11,902	11,668	11,343	11,351
	SR-522	57,268	52,906	42,282	38,072	37,734

Alternative 1 High-Capacity Transit Assumptions

HCT VEHICLE CHARACTERISTICS

Top Speed	60 to 70 mph depending on technology
Minimum Headway	30 seconds to 120 seconds depending on technology
Peak Hour Capacity per Direction	9,000 to 15,000 depending on technology

HCT ROUTE STRUCTURE

The HCT route structure on the Eastside consists of a north-south line connecting SeaTac and Lynnwood, generally along I-405, and east-west lines connecting Seattle to Redmond, generally along SR 520, and Seattle to Issaquah, generally along I-90. East-west HCT service is also provided between Seattle and Downtown Bellevue utilizing both the SR 520 and I –90 corridors. The HCT lines are supported by local bus services which feed the HCT lines and provide connections within and between communities on the Eastside.

The HCT route structure, with lines in the I-405, I-90 and SR 520 corridors, is consistent with Sound Transit's Long Range Regional Transit Vision, and with the Puget Sound Regional Council's regional growth and transportation strategy, VISION 2020. VISION 2020 describes a set of major urban centers connected by regional rapid transit. The HCT route structure connects the designated urban centers of SeaTac, Tukwila, Renton, Kirkland, Redmond, Bothell and Lynnwood with the metropolitan center of Bellevue and regional center of central Seattle.

LINE CHARACTERISTICS

I-405 Line (Tukwila to Lynnwood)

Average Operating Speed	44.6 mph	
Average Station Spacing	2.33 miles	
Peak/Off-Peak Headway	8 min/8 min	Tukwila to Eastgate and South Kirkland to Lynnwood
	4 min/8 min	Eastgate to South Kirkland

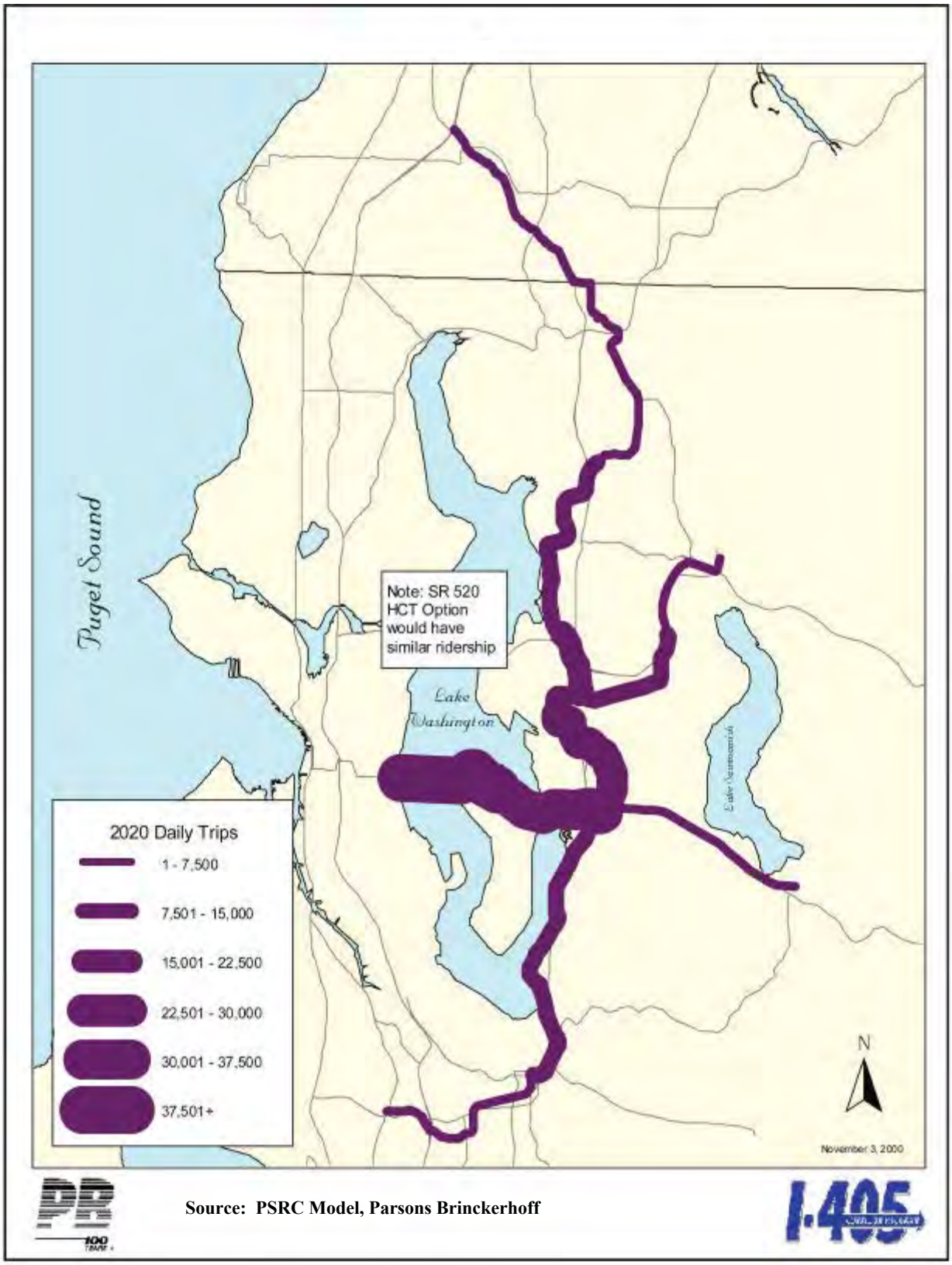
SR 520 Line (Redmond to Seattle)

Average Operating Speed	35.4 mph	
Average Station Spacing	1.91 miles	
Peak/Off-Peak Headway	8 min/8 min	Redmond to Northup
	4 min/8 min	Northup to Seattle

I-90 Line (Issaquah to Seattle)

Average Operating Speed	45.8 mph	
Average Station Spacing	3.77 miles	
Peak/Off-Peak Headway	8 min/30 min	Issaquah to South Bellevue
	3 min/6 min	South Bellevue to Seattle

Figure 1: **Alternative 1-High Capacity Transit Daily Ridership**



I-405 Corridor Program

2020 Alternative 1

AM Peak Bus Routes Serving the Study Area

Route	Description	Headway (min)	Line Length (mi)
101	FAIRWOOD-RENTON STA-BOEING ACC. RD STA	10	27.20
105	N 44th STATION-KENNYDALE-RENTON STATION	10	13.02
106	RENTON STATION-SEATTLE	15	13.21
106	SEATTLE-RENTON STATION	30	13.39
107	RENTON STATION-RAINIER BEACH	20	26.48
108	RENTON STATION-BOEING INDUSTRIAL	40	11.59
110	TUKWILA STATION-N RENTON STATION	15	14.26
111	LAKE KATHLEEN-N 44th STATION	10	15.18
114	RENTON HIGHLANDS-N 44th STATION	36	8.51
124	SOUTHCENTER STATION-TUKWILA P&R	60	12.00
143	BLK. DIAMOND-RENT. STA-BOEING ACC. RD STA	20	46.96
148	FAIRWOOD-RENTON STATION	20	16.20
149	BLACK DIAMOND-RENTON STATION	20	37.32
150	AUBURN-KENT TC-BOEING ACCESS RD STA	15	37.62
153	KENT-RENTON STATION	20	19.60
154	BOEING-TUKWILA STATION-AUBURN	20	22.82
155	FAIRWOOD-SOUTHCENTER STATION	30	14.25
158	LAKE MERIDIAN-S 200th STATION	20	23.43
163	EAST HILL-BOEING ACCESS ROAD STATION	15	13.23
169	KENT TC-RENTON STATION	10	24.28
200	ISSAQUAH CIRCULATOR	15	7.38
201	SOUTH MERCER ISLAND-MERCER ISLAND STA	30	6.75
202	SOUTH MERCER ISLAND-MERCER ISLAND STA	15	3.17
202	MERCER ISLAND STA-SOUTH MERCER ISLAND	15	3.17
204	SOUTH MERCER ISLAND-MERCER ISLAND STA	15	3.83
205	SOUTH MERCER ISLAND-MERCER ISLAND STA	30	6.94
207	FACTORIA STATION-EASTGATE STATION	20	12.84
208	FACTORIA STATION-COUGAR MT	20	12.98
209	NORTH BEND-ISSAQUAH STATION	20	41.16
210	ISSAQUAH STA-EASTGATE STA-I90-SEATTLE	15	20.32
214	NORTH BEND-ISSAQUAH STA-FACTORIA STA	20	20.81
217	FACTORIA STATION-NORTH ISSAQUAH	8	6.71
219	EASTGATE STA-FACTORIA STA-NEWCASTLE A	20	16.77
219	EASTGATE STA-FACTORIA STA-NEWCASTLE B	10	16.77
222	OVERLAKE STA-FACTORIA STA-BELLEVUE STA	30	29.50
225	OVERLAKE STA-EASTGATE STA-FACTORIA STA	25	11.50

I-405 Corridor Program

2020 Alternative 1

AM Peak Bus Routes Serving the Study Area

229	OVERLAKE STA-EASTGATE STA-FACTORIA STA	30	10.52
230	TOTEM LAKE STA-BELLEVUE STA-FACTORIA STA	10	45.36
231	KIRKLAND STATION-TOTEM LAKE STATION	15	25.76
232	ENGLISH HILL-REDMOND STATION	30	9.72
233	BELLEVUE STATION-OVERLAKE STATION	36	7.89
233	OVERLAKE STATION-BELLEVUE STATION	23	17.04
234	KENMORE-BELLEVUE STATION	10	27.94
239	OVERLAKE STATION-TOTEM LAKE STATION	20	23.79
240	BELLEVUE STATION-RENTON STATION	12	47.65
247	OVERLAKE-KENT	60	26.25
249	BELLEVUE STATION-REDMOND STATION	15	11.07
249	REDMOND STATION-BELLEVUE STATION	12	11.07
251	WOODINVILLE STA-REDMOND STA-KIRK. STA	10	38.44
253	BEAR CK. STA-OVERLAKE STA-BELLEVUE STA	10	21.40
254	REDMOND STA-ROSE HILL-KIRKLAND STA	10	14.98
255	TOTEM LAKE STATION-S KIRKLAND STATION	10	21.69
262	TOTEM LAKE STA-ROSE HILL-S KIRKLAND STA	30	18.92
269	OVERLAKE STA-RED. STA-SAMMAMISH-ISS. STA	20	45.87
271	ISSAQUAH STATION-BELLEVUE STATION	10	36.84
291	195th STATION-WILLOWS ROAD-BEAR CK. STA	15	20.68
306	KENMORE-NORTHGATE STATION	12	15.30
307	WOODINVILLE STA-LAKE CITY-NORTHGATE STA	6	25.80
311	NOVELTY HILL-TOTEM LAKE STATION	10	31.32
312	WOODINVILLE STA-LAKE CITY-NORTHGATE STA	10	20.54
340	SHORELINE-195th STATION	30	19.68
372	BOTHELL-UW	24	8.73
908	MAPLEWOOD-RENTON STATION	30	27.65
916	KENT CIRCULATOR	30	23.70
920	TOTEM LAKE STA-LAKE HILLS-BELLEVUE STA	20	28.40
921	FACTORIA STATION-BELLEVUE STATION	20	17.80
922	CARNATION-BEAR CREEK STATION	30	16.52
923	OVERLAKE STA-CROSSROADS-EASTGATE STA	10	8.68
924	YARROW PT-EVERGREEN PT-BELLEVUE STA B	10	10.91
924	YARROW PT-EVERGREEN PT-BELLEVUE STA A	12	10.91
927	ISSAQUAH STATION-SAMMAMISH	24	53.50
929	BEAR CREEK STATION-DUVAL-NORTH BEND	20	63.18
931	WOODINVILLE STA-BOTHELL-KIRKLAND STA	20	30.10
935	KENMORE-TOTEM LAKE STATION	30	12.58
952	AUBURN-BOEING EVERETT CUSTOM BUS	30	48.89
952	AUBURN-BOEING EVERETT CUSTOM BUS	25	48.34
953	EASTGATE-BOEING EVERETT CUSTOM BUS	25	29.12
954	RENTON-BOEING EVERETT CUSTOM BUS	30	34.16
954	RENTON-BOEING EVERETT CUSTOM BUS	25	34.39
965	BEAR CREEK-BOEING EVERETT CUSTOM BUS	30	31.63
965	OVERLAKE-BOEING EVERETT CUSTOM BUS	25	26.95

I-405 Corridor Program

2020 Alternative 1

AM Peak Bus Routes Serving the Study Area

970	AUBURN-BOEING RENTON CUSTOM BUS	30	18.45
CT120	LYNNWOOD-CANYON PARK STATION-BOTHELL	15	24.74
CT150	EDMONDS-CANYON PARK STATION-MILL CREEK	10	16.33
CT160	LYNNWOOD-MILL CREEK	30	25.18
CT424	SNOHOMISH-MONROE-TOTEM LAKE STATION	60	27.29
CT442	EASTMONT-CANYON PARK STATION	30	18.02
ST540	BEAR CREEK STATION-520-UW	9	27.78
ST565	FEDERAL WAY-RENTON STATION	30	45.20

Alternative 3 – Bus Rapid Transit Characteristics

SERVICE CHARACTERISTICS

Bus Rapid Transit Facilities in I-405 Corridor

The Bus Rapid Transit (BRT) system was assumed to operate within the existing freeway HOV lanes along I-405, SR 520, and I-90. Buses would access the HOV lanes using existing and new HOV direct access ramps, together with bus priority treatments applied to connecting arterial streets. Volumes in the HOV lanes were limited to bus and HOV 3+ vehicles.

Top Speed	60 mph
Average Operating Speed (including stops) (I-405, Tukwila to Lynnwood)	34.9 mph (average over entire length)
Average Spacing of HOV Direct Access Ramps and Flyer Stops	3.35 miles (average over entire length)

Total Transit System Serving I-405 Study Area

Annual Transit Vehicle Revenue Hours (Serving I-405 Study Area in 2020	2,140,000	(960,000 No Action)
Annual Transit Vehicle Miles (serving I-405 Study Area in 2020) (including revenue and non-revenue service)	36.3 million	(16.3 million No Action)

BUS ROUTE STRUCTURE

The bus route structure on the Eastside consists of north-south regional routes connecting SeaTac, Lynnwood and intermediate locations, utilizing I-405's HOV lanes, and east-west regional routes connecting Seattle and Eastside locations, utilizing I-90's HOV lanes. The regional routes are supported by local bus services that feed into the HOV lanes and provide connections within and between communities on the Eastside.

The route structure along the HOV lanes, with lines in the I-405, I-90 and SR-520 corridors, is consistent with Sound Transit's Long Range Regional Transit Vision, and with the Puget Sound Regional Council's regional growth and transportation strategy, VISION 2020. VISION 2020 describes a set of major urban centers connected by regional rapid transit. The route structure connects the designated urban centers and population and employment centers of SeaTac, Tukwila, Renton, Kirkland, Redmond, Bothell and Lynnwood with the metropolitan center of Bellevue and the regional center of central Seattle.

OTHER CHARACTERISTICS AND ASSUMPTIONS

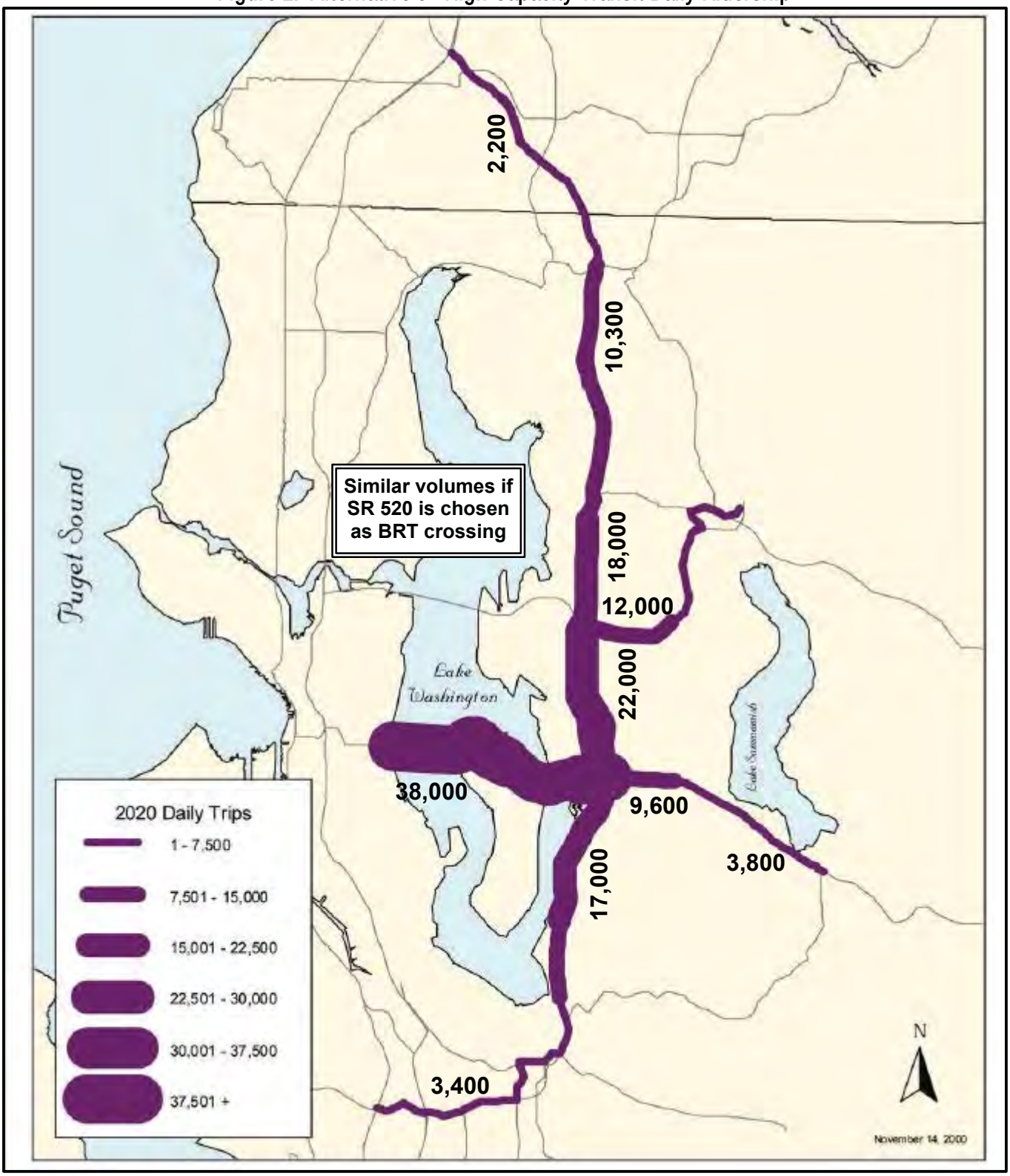
- 2-way HOV lanes assumed on I-90 bridge.
- No HOV lanes assumed on SR-520 bridge.
- Westside light rail service assumed from Roosevelt to S. 200th Street.
- Bus service to Seattle from Northshore via SR-522 terminated at Roosevelt station.
- Bus service to Seattle from Northshore and North Kirkland via SR 520 routed via I-405 and I-90 to International District station.
- Bus service to Seattle from Bellevue, Kirkland, Redmond, Issaquah, and North Renton routed via (I-405/)I-90 to International District station.
- Bus service passing along I-405 routed through Bellevue Transit Center.
- Only bus service left on SR-520 bridge is from Eastside locations to University District.
- Local bus service on the Eastside is increased, with many lines operating at 10-minute peak, 15/20-minute off-peak headways.
- Some new lines included, such as Issaquah-Sammamish-Redmond-Bothell.
- All-day local bus service provided to locations such as North Bend, Sammamish, Duvall

2020 Average Daily Transit Person Trips 110,100 (85,700 No Action)

2020 Transit Performance along I-405 Corridor

Segment	Peak Hour Number of Buses (2020 Peak Direction)	2020 Daily Transit Riders
Tukwila to Renton	8	3,400
Renton to I-90	49	12,200
I-90 to Bellevue	58	23,500
Bellevue to SR 520	73	21,900
SR 520 to Kirkland	50	15,600
Kirkland to Bothell	25	10,300
Bothell to Lynnwood	13	2,200

Figure 2: Alternative 3 - High Capacity Transit Daily Ridership –



I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

Route	Description	Headway (min)	Line Length (mi)
101	RENTON-SEATTLE	15	28.88
101	S RENTON-SEATTLE	60	13.49
101	FAIRWOOD-RENTON-SEATTLE	60	21.61
103	OTHELLO STATION-BOEING	30	11.12
105	KENNYDALE-RENTON	30	10.32
106	RENTON-SEATTLE	15	13.55
106	SEATTLE-RENTON	15	13.73
106	RENTON-HENDERSON STATION	15	5.15
106	HENDERSON STATION-RENTON	15	5.25
107	RENTON-RAINIER BEACH-OTHELLO STATION	15	12.42
108	RENTON-BOEING INDUSTRIAL	90	11.57
109	RENTON-SEATTLE	90	17.66
110	RENTON CIRCULATOR	15	8.36
111	LAKE KATHLEEN-I90-SEATTLE	6.2	22.07
114	RENTON HIGHLANDS-I90-SEATTLE	30	17.69
140	RENTON-S 154th STATION-BURIEN	15	22.38
143	BLACK DIAMOND-RENTON-SEATTLE	16.4	31.88
148	FAIRWOOD-RENTON	30	16.20
149	BLACK DIAMOND-RENTON	20	37.24
150	KENT TC-SEATTLE	20	39.10
150	AUBURN-KENT TC-SEATTLE	30	53.42
153	KENT-RENTON	20	18.56
155	FAIRWOOD-SOUTHCENTER	30	23.43
158	LAKE MERIDIAN-SEATTLE	45	34.19
161	KENT-SEATAC-BURIEN	15	28.98
163	EAST HILL-SEATTLE	36	20.91
169	KENT TC-RENTON TC	10	23.40
200	ISSAQUAH CIRCULATOR	30	7.64
201	SOUTH MERCER ISLAND-MERCER ISLAND	30	6.75
202	SOUTH MERCER ISLAND-SEATTLE	36	10.04
202	SEATTLE-SOUTH MERCER ISLAND	90	10.15
204	SOUTH MERCER ISLAND-MERCER ISLAND	15	3.83
205	SOUTH MERCER ISLAND-UW	30	14.43
206	FACTORIA-NEWCASTLE	30	5.23
207	FACTORIA-EASTGATE	30	8.18

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

208	FACTORIA-COUGAR MT	30	11.59
209	NORTH BEND-ISSAQUAH P&R	20	41.32
210	ISSAQUAH-EASTGATE-I90-SEATTLE	36	20.46
211	NORTH BEND-ISSAQUAH-I90-SEATTLE	36	36.71
212	EASTGATE-I90-SEATTLE	10	11.16
214	NORTH BEND-ISSAQUAH-I90-SEATTLE	36	36.69
214	ISSAQUAH-I90-SEATTLE	18	18.31
217	SEATTLE-I90-NORTH ISSAQUAH	25	16.69
218	ISSAQUAH HIGHLANDS-EASTGATE-I90-SEATTLE	36	15.84
219	EASTGATE-FACTORIA-NEWCASTLE A	30	16.73
219	EASTGATE-FACTORIA-NEWCASTLE B	30	16.73
220	REDMOND-S KIRKLAND-BELLVUE	30	21.14
222	OVERLAKE-FACTORIA-BELLEVUE	15	29.18
224	EASTGATE-COUGAR MT	30	38.32
225	OVERLAKE-EASTGATE-I90-SEATTLE	30	17.15
229	OVERLAKE-EASTGATE-I90-SEATTLE	30	16.66
230	TOTEM LAKE-BELLEVUE-FACTORIA	15	30.71
231	BELLEVUE-REDMOND	15	20.96
232	DUVALL-REDMOND-BELLEVUE	10	13.08
233	BELLEVUE-REDMOND-AVONDALE	24	10.41
233	REDMOND-BELLEVUE	24	10.41
234	KENMORE-BELLEVUE	30	27.92
236	WOODINVILLE-JUANITA-KIRKLAND	30	19.41
238	BOTHELL-TOTEM LAKE-KIRKLAND	30	23.92
240	CLYDE HILL-BELLEVUE-RENTON	15	36.49
242	AURORA VILLAGE-520-OVERLAKE	20	23.87
244	BOTHELL-OVERLAKE	30	24.32
245	KIRKLAND-EASTGATE-FACTORIA	30	28.91
247	REDMOND-KENT	30	26.14
248	KENT-OVERLAKE	30	21.03
249	BELLEVUE-REDMOND	15	12.28
249	REDMOND-BELLEVUE	15	13.15
250	REDMOND-I90-SEATTLE	36	24.23
251	SEATTLE-I90-S KIRKLAND-KIRKLAND-REDMOND	10	34.32
251	NORTH CREEK-REDMOND-KIRKLAND	30	9.73
251	REDMOND-KIRKLAND-S KIRKLAND-I90-SEATTLE	60	31.23
252	TOTEM LAKE-I90-SEATTLE	16.4	25.07
253	REDMOND-OVERLAKE-BELLEVUE	10	21.32
254	SEATTLE-I90-S KIRKLAND-KIRKLAND-REDMOND	10	25.67
254	REDMOND-I90-SEATTLE	90	23.18
254	REDMOND-KIRKLAND-S KIRKLAND-I90-SEATTLE	10	25.80
255	TOTEM LAKE-S KIRKLAND-I90-SEATTLE	10	40.89
256	OVERLAKE-S KIRKLAND-I90-SEATTLE	90	13.83
257	TOTEM LAKE-I90-SEATTLE	25.7	25.54
260	KENMORE-JUANITA-I90-SEATTLE	60	27.39

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

261	OVERLAKE-BELLEVUE-SEATTLE	30	15.03
263	SEATTLE-I90-OVERLAKE-REDMOND	10	27.12
263	REDMOND-OVERLAKE-I90-SEATTLE	10	27.08
265	REDMOND-HOUGHTON-I90-SEATTLE	23	20.82
266	BEAR CREEK-REDMOND-I90-SEATTLE	20	22.49
267	REDMOND-I90-SEATTLE	36	28.51
268	BEAR CREEK-REDMOND-I90-SEATTLE	23	22.02
269	OVERLAKE-REDMOND-SAMMAMISH-ISSAQUAH	15	41.58
271	ISSAQUAH-BELLEVUE-520-UW	15	41.50
271	EASTGATE-BELLEVUE-520-UW	12	28.64
272	EASTGATE-XROADS-520-UW	30	17.87
277	TOTEM LAKE-520-UW	15	40.41
291	TOTEM LAKE-REDMOND-BEAR CREEK	15	13.14
299	BTC-REDMOND ARTERIAL BRT	10	16.94
306	KENMORE-SEATTLE	25.7	17.03
310	BOTHELL-SEATTLE	45	20.74
311	NOVELTY HILL-I90-SEATTLE	45	35.33
312	WOODINVILLE-LAKE CITY-SEATTLE	5.3	19.76
312	KENMORE-LAKE CITY-SEATTLE	25.7	13.66
341	SHORELINE-OVERLAKE	10	40.66
342	SHORELINE-RENTON	40	31.95
372	WOODINVILLE-UW	10	27.92
908	MAPLEWOOD-RENTON	30	11.75
909	RENTON-KENNYDALE	30	10.80
916	KENT CIRCULATOR	30	14.48
921	FACTORIA-BELLEVUE	20	17.66
922	CARNATION-REDMOND	30	16.52
924	YARROW PT-EVERGREEN PT-BELLEVUE A	15	10.91
924	YARROW PT-EVERGREEN PT-BELLEVUE B	15	10.91
925	EASTGATE-FACTORIA-NEWCASTLE	20	17.26
927	ISSAQUAH-SAMMAMISH	20	53.60
929	DUVAL-NORTH BEND	30	41.18
935	KENMORE-TOTEM LAKE	30	18.18
KCM	NEWPORT HILLS-FACTORIA-EASTGATE	10	9.32
KCM	RENTON HIGHLANDS-NEWCASTLE-I-90-SEATTLE	15	35.52
CT105	BOTHELL-MARINER P&R	12	27.88
CT120	LYNNWOOD-BOTHELL	15	20.04
CT150	MAYS POND-EDMONDS CC	40	13.28
CT160	LYNNWOOD-MILL CREEK	15	25.18
CT424	SNOHOMISH-MONROE-I90-SEATTLE	40	46.57
CT435	CANYON PARK-SEATTLE	24	28.10
CT441	EDMONDS-OVERLAKE	30	23.27
ST	WOODINVILLE-BELLEVUE-SEATTLE	7.5	50.90
ST	EASTMONT-BELLEVUE	20	44.94
ST	SEATAC-LYNNWOOD BRT	10	36.29

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

ST	LYNNWOOD-SEATAC BRT	10	36.18
ST	REDMOND-BELLEVUE	10	19.78
ST522	WOODINVILLE-SEATTLE	10	43.68
ST530	BELLEVUE-EVERETT	20	26.45
ST532	EVERETT-BELLEVUE	15	26.47
ST540	REDMOND-520-UW	10	32.11
ST545	REDMOND-520-SEATTLE	15	17.40
ST545	SEATTLE-520-REDMOND	15	17.59
ST550	BELLEVUE-I90-SEATTLE	7.5	12.90
ST550	SEATTLE-I90-BELLEVUE	7.5	13.02
ST554	ISSAQUAH-EASTGATE-I90-SEATTLE	10	32.51
ST555	ISSAQUAH-BELLEVUE-520-NORTHGATE	10	46.71
ST556	AUBURN-BELLEVUE	20	44.66
ST565	FEDERAL WAY-RENTON	15	36.60

Preferred Alternative Transit Characteristics

SERVICE CHARACTERISTICS

TOTAL TRANSIT SYSTEM SERVING I-405 STUDY AREA

The transit system serving the I-405 study area under the Preferred Alternative would consist of three components: Local service, express/commuter service, and a BRT express service. Assumed year 2020 annual platform hours are shown below:

Annual Transit Platform Hours (Serving I-405 Study Area in 2020)	2.65 million
Local Service (King County Metro and Community Transit)	1.75 million
Express/Commuter Service (King County Metro and Community Transit)	0.25 million
BRT/Sound Transit Regional Express	0.65 million

Comparative levels of service, as measured in annual transit platform hours, for other alternatives include:

2007 Base Year	1.60 million hours
2020 No Action Alternative (revised)	1.75 million hours
2020 Alternative 3 (revised)	2.85 million hours

BUS RAPID TRANSIT SERVICE IN I-405 CORRIDOR

Alignment

From Sea-Tac Airport Transportation Center via North Airport Access Road to SR 518 to I-405 HOV lanes. Exit I-405 HOV lanes to a bus-only ramp east of SR 181 into the Tukwila Commuter Rail station. From the Tukwila Commuter Rail station proceed east on SW 16th Street to Lind Avenue SW, then north to SW Grady Way then east to Rainier Avenue South. Continue via arterial HOV lanes on Rainier Avenue South, South 3rd/4th Streets, Park Avenue North and North 8th Street to I-405 Direct Access. Via I-405 HOV lanes to Bellevue Direct Access to Bellevue Transit Center. From Bellevue Transit Center via Bellevue Direct Access Ramps to I-405 HOV lanes. Via I-405 HOV lanes to I-5, south on I-5 HOV lanes to Lynnwood Direct Access ramps to Lynnwood Transit Center.

- Average Spacing of BRT Stops — 3.6 miles (average over entire length)
- Top Speed — 60 mph
- Average Operating Speed (including stops) — 30.4 mph (average over entire length)

Service Pattern

- BRT Backbone Service

All Day, Two-Way All-Stop Service at 10 minute headway

Other All Day BRT Routes using I-405:

Federal Way to Auburn, via SR 167 to Renton Transit Center

Issaquah via I-90 to I-405 to SR 520 to I-5 to Northgate

Woodinville Transit Center to SR 522 to I-405 to Bellevue Transit Center to I-90 to Downtown Seattle

Everett Mall via I-5 to I-405 to Bellevue Transit Center

Eastmont via SR 527 to I-405 to Bellevue Transit Center

- Other Sound Transit Regional Express Services on SR 520 and I-90
- All Day Feeder / Local Bus Service connecting at BRT stations
- Peak Period Express Services

Service Characteristics

- Distinctive Vehicles with Level Boarding
- Off-Vehicle Fare Collection
- High-End Customer Information Displays

BRT Station Locations

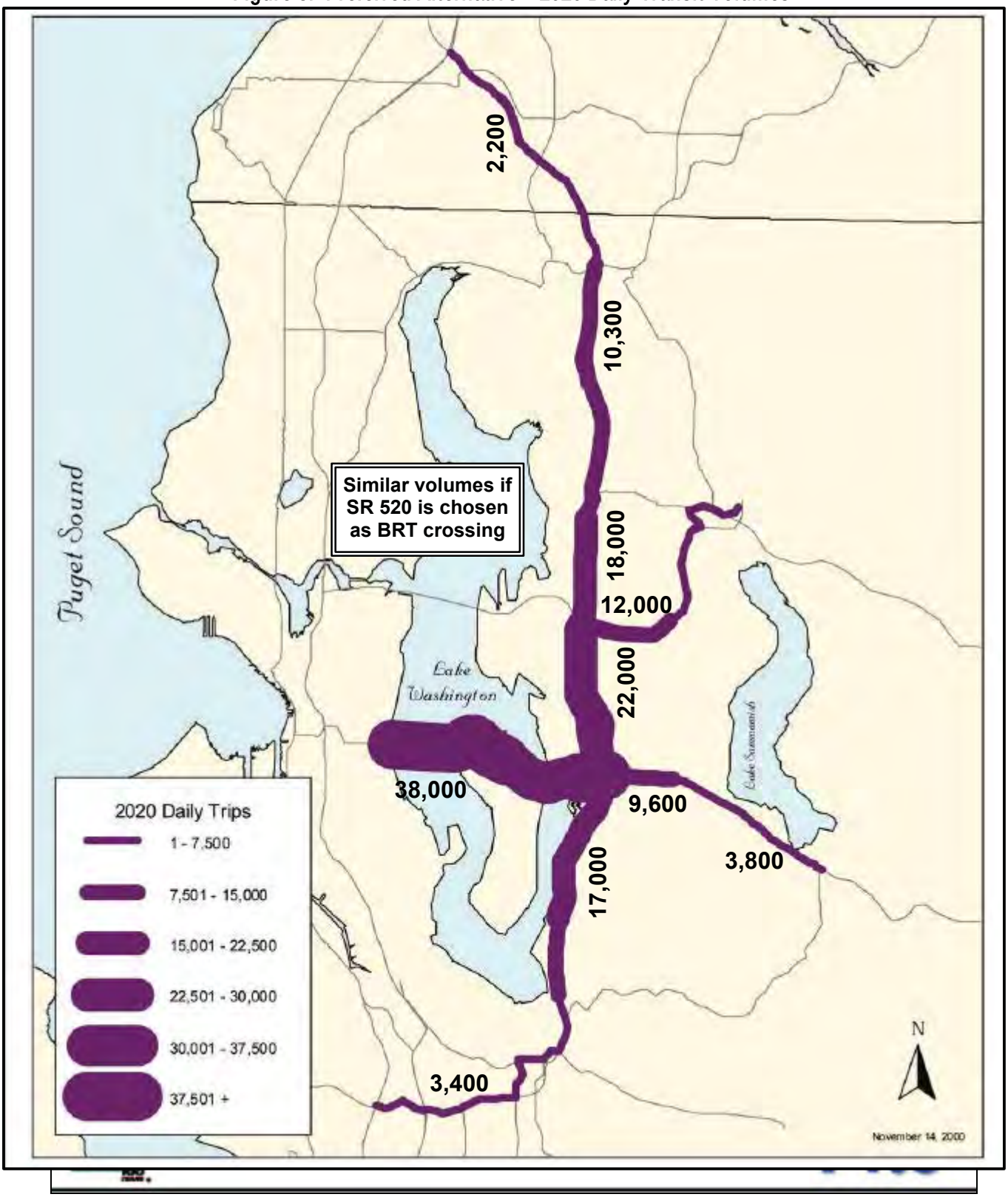
- Sea-Tac Airport Transportation Center
- Tukwila (Commuter Rail Station)

- Renton Transit Center
- N 44th Street
- Newport Hills
- Bellevue Transit Center
- Central Kirkland (NE 85th Street)
- Totem Lake
- NE 195th Street
- Canyon Park
- Lynnwood Transit Center

Other Bus Connection Locations

- I-90
- SR 520
- SR 522
- I-5 (Swamp Creek Interchange)

Figure 3: Preferred Alternative – 2020 Daily Transit Volumes



I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

Route	Description	Headway (min)	Line Length (mi)
101	RENTON-SEATTLE	15	28.88
101	S RENTON-SEATTLE	60	13.49
101	FAIRWOOD-RENTON-SEATTLE	60	21.61
103	OTHELLO STATION-BOEING	30	11.12
105	KENNYDALE-RENTON	30	10.32
106	RENTON-SEATTLE	15	13.55
106	SEATTLE-RENTON	15	13.73
106	RENTON-HENDERSON STATION	15	5.15
106	HENDERSON STATION-RENTON	15	5.25
107	RENTON-RAINIER BEACH-OTHELLO STATION	15	12.42
108	RENTON-BOEING INDUSTRIAL	90	11.57
109	RENTON-SEATTLE	90	17.66
110	RENTON CIRCULATOR	15	8.34
111	LAKE KATHLEEN-I90-SEATTLE	9.5	22.07
114	RENTON HIGHLANDS-I90-SEATTLE	30	17.69
140	RENTON-S 154th STATION-BURIEN	15	22.38
143	BLACK DIAMOND-RENTON-SEATTLE	30	31.88
148	FAIRWOOD-RENTON	30	16.20
149	BLACK DIAMOND-RENTON	30	37.24
150	KENT TC-SEATTLE	20	39.10
150	AUBURN-KENT TC-SEATTLE	30	53.42
153	KENT-RENTON	30	18.56
155	FAIRWOOD-SOUTHCENTER	30	23.43
158	LAKE MERIDIAN-SEATTLE	45	34.19
161	KENT-SEATAC-BURIEN	15	28.98
163	EAST HILL-SEATTLE	30	20.91
169	KENT TC-RENTON TC	30	23.40
200	ISSAQUAH CIRCULATOR	30	7.64
201	SOUTH MERCER ISLAND-MERCER ISLAND	30	6.75
202	SOUTH MERCER ISLAND-SEATTLE	36	10.04
202	SEATTLE-SOUTH MERCER ISLAND	90	10.15
204	SOUTH MERCER ISLAND-MERCER ISLAND	15	3.83
205	SOUTH MERCER ISLAND-UW	30	14.43
206	FACTORIA-NEWCASTLE	30	5.23
207	FACTORIA-EASTGATE	30	8.18
208	FACTORIA-COUGAR MT	30	11.59

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

209	NORTH BEND-ISSAQUAH P&R	20	41.32
210	ISSAQUAH-EASTGATE-I90-SEATTLE	36	20.46
211	NORTH BEND-ISSAQUAH-I90-SEATTLE	45	36.71
212	EASTGATE-I90-SEATTLE	10	11.16
214	NORTH BEND-ISSAQUAH-I90-SEATTLE	45	36.69
214	ISSAQUAH-I90-SEATTLE	18	18.31
217	SEATTLE-I90-NORTH ISSAQUAH	25	16.69
218	ISSAQUAH HIGHLANDS-EASTGATE-I90-SEATTLE	36	15.84
219	EASTGATE-FACTORIA-NEWCASTLE A	30	16.73
219	EASTGATE-FACTORIA-NEWCASTLE B	30	16.73
220	REDMOND-S KIRKLAND-BELLVUE	30	21.14
222	OVERLAKE-FACTORIA-BELLEVUE	15	29.18
224	EASTGATE-COUGAR MT	30	38.32
225	OVERLAKE-EASTGATE-I90-SEATTLE	30	17.15
229	OVERLAKE-EASTGATE-I90-SEATTLE	30	16.66
230	TOTEM LAKE-BELLEVUE-FACTORIA	15	30.71
231	BELLEVUE-REDMOND	30	20.96
232	DUVALL-REDMOND-BELLEVUE	30	13.08
233	BELLEVUE-REDMOND-AVONDALE	24	10.41
233	REDMOND-BELLEVUE	24	10.41
234	KENMORE-BELLEVUE	30	27.92
236	WOODINVILLE-JUANITA-KIRKLAND	30	19.41
238	BOTHELL-TOTEM LAKE-KIRKLAND	30	23.92
240	CLYDE HILL-BELLEVUE-RENTON	15	36.49
242	AURORA VILLAGE-520-OVERLAKE	20	23.87
244	BOTHELL-OVERLAKE	30	24.32
245	KIRKLAND-EASTGATE-FACTORIA	30	28.91
247	REDMOND-KENT	30	26.13
248	KENT-OVERLAKE	30	21.03
249	BELLEVUE-REDMOND	30	12.28
249	REDMOND-BELLEVUE	30	13.15
250	REDMOND-I90-SEATTLE	36	22.99
251	SEATTLE-520-S KIRKLAND-KIRKLAND-REDMOND	30	16.13
251	NORTH CREEK-REDMOND-KIRKLAND	30	9.73
251	REDMOND-KIRKLAND-S KIRKLAND-520-SEATTLE	60	27.12
252	TOTEM LAKE-520-SEATTLE	18	23.83
253	REDMOND-OVERLAKE-BELLEVUE	15	21.32
254	SEATTLE-520-S KIRKLAND-KIRKLAND-REDMOND	20	19.48
254	REDMOND-520-SEATTLE	90	19.12
254	REDMOND-KIRKLAND-S KIRKLAND-520-SEATTLE	20	19.80
255	TOTEM LAKE-S KIRKLAND-520-SEATTLE	15	40.89
256	OVERLAKE-S KIRKLAND-520-SEATTLE	90	13.83
257	TOTEM LAKE-I90-SEATTLE	22.5	24.30
260	KENMORE-JUANITA-I90-SEATTLE	60	26.15
261	OVERLAKE-BELLEVUE-SEATTLE	30	15.03

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

263	SEATTLE-520-OVERLAKE-REDMOND	20	22.98
263	REDMOND-OVERLAKE-520-SEATTLE	90	22.53
265	REDMOND-HOUGHTON-I90-SEATTLE	23	19.58
266	BEAR CREEK-REDMOND-I90-SEATTLE	20	21.25
267	REDMOND-I90-SEATTLE	36	27.27
268	BEAR CREEK-REDMOND-I90-SEATTLE	23	20.78
269	OVERLAKE-REDMOND-SAMMAMISH-ISSAQUAH	15	41.58
271	ISSAQUAH-BELLEVUE-520-UW	13.8	41.50
271	EASTGATE-BELLEVUE-520-UW	12.9	28.64
272	EASTGATE-XROADS-520-UW	30	17.87
277	TOTEM LAKE-520-UW	15	40.41
291	TOTEM LAKE-REDMOND-BEAR CREEK	25	13.14
299	BTC-REDMOND ARTERIAL BRT	10	16.94
306	KENMORE-SEATTLE	18	17.03
310	BOTHELL-SEATTLE	45	20.74
311	NOVELTY HILL-520-SEATTLE	45	31.37
312	WOODINVILLE-LAKE CITY-SEATTLE	7.2	19.76
312	KENMORE-LAKE CITY-SEATTLE	18	13.66
341	SHORELINE-OVERLAKE	10	40.66
342	SHORELINE-RENTON	40	31.95
372	WOODINVILLE-UW	15	27.92
908	MAPLEWOOD-RENTON	30	11.75
909	RENTON-KENNYDALE	30	10.80
916	KENT CIRCULATOR	30	14.48
921	FACTORIA-BELLEVUE	20	17.66
922	CARNATION-REDMOND	30	16.52
924	YARROW PT-EVERGREEN PT-BELLEVUE A	30	10.91
924	YARROW PT-EVERGREEN PT-BELLEVUE B	30	10.91
925	EASTGATE-FACTORIA-NEWCASTLE	20	17.26
927	ISSAQUAH-SAMMAMISH	20	53.60
929	DUVAL-NORTH BEND	30	41.18
935	KENMORE-TOTEM LAKE	30	18.18
KCM	NEWPORT HILLS-FACTORIA-EASTGATE	10	9.32
KCM	RENTON HIGHLANDS-NEWCASTLE-I-90-SEATTLE	12.9	35.52
CT105	BOTHELL-MARINER P&R	12	27.88
CT120	LYNNWOOD-BOTHELL	30	20.04
CT150	MAYS POND-EDMONDS CC	40	13.28
CT160	LYNNWOOD-MILL CREEK	15	25.18
CT424	SNOHOMISH-MONROE-520-SEATTLE	40	42.52

I-405 Corridor Program

2020 Alternative 3

AM Peak Bus Routes Serving the Study Area

CT435	CANYON PARK-SEATTLE	24	28.10
CT441	EDMONDS-OVERLAKE	30	23.27
ST	WOODINVILLE-BELLEVUE-I90SEATTLE	7.5	50.90
ST	EASTMONT-BELLEVUE	20	44.94
ST	SEATAC-LYNNWOOD BRT	10	36.28
ST	LYNNWOOD-SEATAC BRT	10	36.17
ST	REDMOND-BELLEVUE	10	19.78
ST522	WOODINVILLE-SEATTLE	30	43.68
ST530	BELLEVUE-EVERETT	20	26.45
ST532	EVERETT-BELLEVUE	15	26.47
ST540	REDMOND-520-UW	10	32.11
ST545	REDMOND-520-SEATTLE	15	17.40
ST545	SEATTLE-520-REDMOND	30	17.59
ST550	BELLEVUE-I90-SEATTLE	7.5	12.90
ST550	SEATTLE-I90-BELLEVUE	8.2	13.02
ST554	ISSAQUAH-EASTGATE-I90-SEATTLE	10	32.51
ST555	ISSAQUAH-BELLEVUE-520-NORTHGATE	15	46.71
ST556	AUBURN-BELLEVUE	20	44.66
ST565	FEDERAL WAY-RENTON	20	36.60

APPENDIX J

I-405 Corridor Program
Corridor Environmental Program (CEP)

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APPENDIX J:
I-405 CORRIDOR ENVIRONMENTAL PROGRAM (CEP)

The Corridor Environmental Program (CEP) for the Interstate 405 (I-405) Corridor Program is intended to meet the mitigation concept requirement of the Reinventing NEPA process.

PURPOSE OF THE CORRIDOR ENVIRONMENTAL PROGRAM

The CEP defines an environmental program that complements and becomes an integral part of the I-405 Corridor transportation program. The I-405 Corridor Program is one of the largest transportation projects in Washington State history. The program offers an unprecedented opportunity to address transportation needs and, at the same time, address impacts to the natural and built environments in a comprehensive manner within the corridor. The primary focus of the CEP is to clearly present the goals and objectives of the environmental program and to outline strategies for addressing impacts of the corridor program to the natural and built environment.

The CEP conforms to the purpose and need for the I-405 Corridor Program, by:

1) Maintaining or enhancing community livability within the corridor; and
2) Maintaining, protecting or enhancing the integrity of the region's natural environment.

To address those elements of the program, the CEP describes mitigation at a level commensurate with the programmatic decision being made now and contains the following:

- Goals and objectives for the natural and built environment
- A strategy for mitigating impacts to the natural and built environments through early action and project-level measures

The CEP is a component of the I-405 Corridor Program Preferred Alternative and Mitigation Concept and will provide guidance for development of the environmental portions of a Memorandum of Understanding among the project- level implementing and regulatory agencies and jurisdictions.

Background

I-405 is a major transportation corridor serving people and goods moving north and south on the east side of Lake Washington. While originally developed as a bypass route for Seattle, I-405 now serves as the transportation backbone for an area that is home to nearly 20 percent of the Puget Sound region's population. The I-405 corridor population and employment growth is expected to increase by over 35 percent during the next 20 years. By 2020, an additional 144,000 people are forecasted to be employed within the study area, while the population is expected to reach approximately 765,000, an increase of more than 200,000 people from 1997. This growth is projected to increase the number of person trips in the corridor by about 56 percent (1995-2020).

Through a three-year process, a general consensus emerged around a multi-modal transportation alternative that included road construction, a bus rapid transit system, demand management strategies, and related improvements. Over the course of this process, the three committees approved the purpose, goals, and objectives for the I-405 Corridor Program. Members of these committees resolved that the alternatives selected for I-405 will:

- Improve mobility;
- Reduce congestion;
- Improve livability;
- Be environmentally responsive; and
- Provide solutions that can be implemented.

THE CEP GOALS AND OBJECTIVES

The following three goals and associated objectives will guide development of future project-level environmental programs and supporting early actions. The first two goals address the natural environment and the third addresses the built environment.

Goals:

1. Integrate transportation and environmental investments in a way that improves critical natural resources and supporting habitat.
2. Use a watershed-based approach to mitigation to ensure transportation-related environmental funds are spent on the greatest environmental benefit.
3. Implement the Program in a manner that supports the Growth Management Act goals.

The following objectives are measures aimed at protecting and where possible enhancing the environment as the I-405 Corridor Program is implemented. The objectives are proposed as actions to be undertaken by project implementers that will be taken to address environmental mitigation and enhancement opportunities. The objectives will form the foundation of project decisions and permits as the corridor program is implemented. The objectives are commensurate with the level of detail available at the time of the I-405 Corridor Program FEIS issuance and will become more explicit as project implementation moves forward.

The first step in providing more detail for the mitigation concept is the development of a Corridor Mitigation Plan. Prior to project level permitting, WSDOT will develop a mitigation plan for the I-405 corridor for resources protected and regulated by federal, state, and local jurisdictions. The plan will be developed consistent with the proposed early-action environmental impact mitigation decision-making process presented here as part of the CEP. The plan will be based upon a 5 percent design level planned for the corridor. It will include a more detailed analysis of project impacts and an analysis of mitigation opportunities, first on-site, second within the same sub-basin, and third within the same watershed (i.e. water resource inventory area, or WRIA) in order to find the most appropriate or best mitigation opportunity for each impact. Off-site and out-of-kind mitigation opportunities will be evaluated in accordance

with the Alternative Mitigation Policy Guidance Interagency Implementation Agreement adopted on February 14, 2000 by WSDOT, the Department of Ecology, and the state Department of Fish and Wildlife to supplement in-kind, on-site opportunities.

WSDOT anticipates that it may not be possible nor the most beneficial to the natural environment to mitigate all project impacts within the same sub-basin where the impact occurs. While the mitigation will be analyzed at various levels, it will be implemented at the most appropriate level to maximize environmental benefit in a cost-effective manner. For example, WSDOT may mitigate for lost wetland function and acreage through a combination of opportunities that involve on-site, in-kind mitigation within the sub-basin of impact and off-site mitigation in other sub-basins within the same watershed.

Natural Environment Objectives

- Avoid and minimize impacts to fish and wildlife and their habitat to the extent practicable and compensate for unavoidable impacts.
- Maintain, protect, and enhance the functions of fish and wildlife habitat, wetlands, and other waters of the state and seek a net gain in those functions through preservation, restoration, creation, and enhancement.
- Adaptively manage mitigation sites. Design, implement, monitor, evaluate, and adjust mitigation sites to ensure that defined standards are met.
- Establish and integrate into an agreement among project proponents and local, state and federal regulatory agencies an innovative mitigation strategy and schedule to protect environmental resources while ensuring transportation project delivery.
- Maintain, protect, and improve air quality in the corridor and the region during construction and operation through:
    - Innovative project design;
    - Mitigation of construction-related emissions; and
    - Measures such as congestion reduction, transportation demand management, and fuel and technology improvements that reduce transportation related emissions of ozone precursors, particulate matter (PM_{10} &$PM_{2.5}$), toxic air pollutants, and carbon monoxide.
- Provide treatment for water quality and quantity for new impervious areas and as appropriate, retrofit existing stormwater outfalls, and participate in watershed-based stormwater mitigation projects that would result in net improvements in the water quality and hydrology baselines in the affected watersheds.
- Protect sole-source aquifers and minimize impacts to groundwater quality and quantity.
- Result in no net loss of wetland area and function or floodplain area and function.
- Design and implement appropriate mitigation projects in advance of transportation project construction activities.

Built Environment Objectives

- Avoid or minimize right-of-way and noise impacts to residences and businesses by incorporating appropriate design/technologies. Use advance mitigation to reduce the impacts of construction activities on mobility and the communities.
- Use adaptive management techniques to monitor and adjust transportation improvements and schedules to achieve maximum benefits at lowest environmental and social costs. Locate and design transportation facilities to promote compact development and provide flexibility to serve future inter-modal needs.
- Develop a project implementation program that will include as early actions:
  - Transportation Demand Management
  - Transit investments necessary to provide alternative means and routes for travel in the impacted sections
  - Environmental mitigation
  - Targeted arterial investments

THE CEP MITIGATION STRATEGY

EARLY ACTION

Based upon the CEP goals and objectives the program will identify early actions that the implementing agencies can take to address project impacts to both the Natural and Built Environments. These early action strategies will be developed and completed prior to permits being issued for construction.

Natural Environment

The CEP includes a process by which implementing and regulatory agencies will jointly make decisions on early-action mitigation for impacts to water resources, wetlands, floodplains, protected aquatic and upland species, and habitat (Proposed Early Action Environmental Impact Mitigation Decision Making Process, WSDOT, 2002).

The process involves two general phases:

- Prior to transportation project permitting, develop and implement early-action mitigation project(s) to compensate for environmental functions that are likely to be impacted by the program; and
- During transportation project permitting and construction, identify avoidance, minimization, on-site/in-kind, and early-action or off-site compensatory mitigation measures best suited to address project-level impacts.

This evaluation will include avoidance, minimization, and on- and off-site compensatory mitigation opportunities. The off-site mitigation opportunities will rely heavily, but not exclusively, on information provided in the Water Resource Inventory Area (WRIA) 8 and 9

programs and public planning documents. Those agencies with jurisdiction/authority over the impacted resource will help define the best compensation opportunities. The area in the vicinity of the I-405 and SR 167 interchange may be used as an example to demonstrate this approach (I-405 Corridor Program Example Project Environmental Analysis, DEA, 2002).

Should this strategy prove successful, it could become a template for the entire I-405 corridor and other urban projects.

Built Environment

The I-405 Corridor Program's impacts to the built environment include right-of-way , noise, mobility (during construction), and social impacts. Avoidance and minimization of these impacts will be addressed prior to individual project construction. An implementation program is being developed and will include early development of selected Transportation Demand Management (TDM), transit investments necessary to provide alternative means and routes for travel in the impacted sections, and targeted arterial investments. A parallel effort is also being done to look at creative ways to reduce noise impacts of freeway facilities.

PROJECT LEVEL

The level of detail necessary to make project-level impact mitigation decisions was not provided in the programmatic I-405 Corridor Program Environmental Impact Statement. However, project-level environmental review, as well as construction and operational impact mitigation identification and implementation, will proceed following the issuance of the I-405 Corridor Program FEIS and Record of Decision (ROD).

The CEP will guide project-level mitigation decisions. For example, authorities responsible for project design and environmental mitigation will ensure that a transportation project does not result in a net loss to wetland area or function. Furthermore, the Proposed Early-Action Environmental Impact Mitigation Decision-Making Process (WSDOT, 2002) can be used during the project permitting phase as it identifies a process for specifying how impacts can be avoided, minimized, or best compensated for through on-site, in-kind compensatory mitigation or early-action mitigation credits.

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Proposed Early-Action Environmental Impact Mitigation Decision-Making Process

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June 2002

Proposed Early-Action Environmental Impact Mitigation Decision-Making Process

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B - Summary of I-405 Corridor Program Preferred Alternative Impacts

C - Possible Mitigation

D - Proposed Early-Action Environmental Impact Mitigation Decision-Making Process Flowchart

E - Agency Mitigation Requirements

F - Compensatory Mitigation Needs Per WRIA

G - Opportunities to Avoid, Minimize or Otherwise Mitigate Impacts

H - Hypothetical Analysis of Opportunities to Avoid, Minimize or Otherwise Mitigate Impacts

INTRODUCTION

The Washington State Department of Transportation (WSDOT) is committed to pursuing early-action environmental impact mitigation for some of the unavoidable natural resource impacts of various major transportation improvement projects in the four-county Puget Sound region because such mitigation has a better chance of achieving a greater net environmental benefit than traditional compensatory mitigation.[1] However, no process exists for making decisions on such early-action mitigation, so WSDOT has developed the proposed process presented in this report for making such decisions. WSDOT is requesting agreement on the process by various agencies with jurisdiction over WSDOT projects, and it will apply whatever process is agreed to and develop an early-action environmental impact mitigation proposal for the I-405 corridor program as a first-case use of the process. By doing so, WSDOT expects to achieve another commitment to improve the condition of the natural environment in the watersheds affected by the I-405 Corridor Program over what the conditions would otherwise be when project construction begins.

BACKGROUND

Interstate 405 (I-405) is a major transportation corridor serving vehicles traveling north and south on the east side of Lake Washington. While originally developed as a bypass route for Seattle, I-405 now serves as the backbone transportation system for nearly 20 percent of the Puget Sound Region's population. The I-405 corridor population and employment growth will increase by over 35 percent during the next 20 years. By 2020, an additional 144,000 people are forecast to be employed within the study area, while the population is expected to reach approximately 765,000, an increase of more than 200,000 people from 1997. This growth will result in an increase of 56 percent in person trips (1995-2020).

The State Legislature's request for the State to find and implement mobility improvements in the I-405 corridor has strong support from individuals, businesses, interest groups, Eastside communities, and state and local elected officials. Three committees were created to provide direction, assure community feedback, and promote regional consensus for the project. In addition, a wide-ranging public involvement program was established to gain input from people. The Executive, Steering, and Citizen committees approved the purpose, goals, and objectives for the I-405 Corridor Program. Members of the three committees were resolved that the alternatives selected for the I-405 Corridor Program would: improve mobility, reduce congestion, improve livability, be environmentally responsive, and provide solutions that can be implemented.

[1] As shown in the glossary of key terms provided in Appendix A, "mitigation" means sequentially avoiding impacts, minimizing impacts, or compensating for remaining unavoidable impacts. "Early-action environmental impact mitigation" means any restoration, creation, enhancement, or preservation activities undertaken, or proposed to be undertaken, in advance of a project's planned environmental impacts as compensation for impacts that are likely to be unavoidable and would not be adequately, practicably, or as effectively mitigated through minimization or on-site in-kind compensatory mitigation undertaken concurrent with project construction. "Compensatory mitigation" means the restoration, creation, enhancement, or preservation of uplands, wetlands, or other aquatic resources for the purposes of compensating for unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization has been achieved.

Planning for a variety of multi-modal improvements in the corridor has now progressed to the point where a preferred alternative that avoids or minimizes many of the potential environmental impacts and best meets all of the above-listed criteria has been selected, and many of the environmental impacts of this alternative have been identified. The environmental impacts of all of the various projects that make up the preferred alternative and various possible mitigation measures are discussed in more detail in the I-405 Corridor Program Final Environmental Impact Statement (FEIS).[2]

WSDOT also wants to show how any unavoidable impacts of the Preferred Alternative can be compensated for, even to the point of improving the environment for certain critical natural resources, especially if the agency can use early-action environmental impact mitigation. Early-action environmental impact mitigation includes, but is not limited to, "mitigation banking", which can be allowed for certain types of environmental impacts according to the Alternative Mitigation Policy Guidance Interagency Implementation Agreement (herein referred to as the "Alternative Mitigation Agreement") adopted by the Washington State departments of Ecology, Fish and Wildlife, and Transportation in February 2000. By using early-action environmental impact mitigation, and aligning WSDOT mitigation needs with various watershed and salmonid recovery needs, WSDOT can focus its impact mitigation activities where they will provide the greatest net environmental benefits, and in some cases demonstrate the likely success of those activities before project construction occurs.

The Alternative Mitigation Agreement provides useful guidance on alternative mitigation priorities, but it does not define a process for making decisions on alternative mitigation, including mitigation banking or other forms of early-action environmental impact mitigation. This report proposes a process for making decisions on such mitigation for I-405, which may also serve as a model for other transportation projects in urban areas. However, if there are conflicts between the Alternative Mitigation Agreement and the I-405 Corridor Environmental Program, including this Proposed Early-Action Environmental Impact Decision-Making Process, Program, the latter takes precedence. Furthermore, the WSDOT also considers the proposed process a working model that may need to be refined before it can be applied.

Finally, because the Alternative Mitigation Agreement indicates that mitigation banking may be an acceptable form of mitigation for wetland, floodplain, habitat, and/or stream bank impacts, the proposed process only deals with early-action mitigation for the following types of environmental impacts dealt with in the I-405 Final EIS: water resources (i.e., water quality and quantity), wetlands, floodplains, protected aquatic species and habitat, and protected upland species and habitat. Furthermore, the proposed process as it applies to stormwater and water quality will be more fully developed.

PROGRAMMATIC APPROACHES TO MITIGATION

WSDOT has made sound environmental stewardship part of its mission, and the department is fully committed to complying with all environmental laws and regulations, including any that require mitigation for significant environmental impacts of a transportation improvement project.

[2] A summary of the impacts on water resources, wetlands, floodplains, protected aquatic species and habitat, and protected upland species and habitat and possible mitigation measures for those impacts are shown in Appendices B and C.

Therefore, the agency continues to improve and expand its environmental management system so that it embraces all agency program functions. It actively applies mitigation sequencing in the planning, design, and development of any transportation improvement project by first avoiding impacts, second minimizing impacts, and third compensating for any unavoidable impacts that cannot be effectively mitigated through minimization or on-site, in-kind compensatory mitigation. However, WSDOT also recognizes that many transportation improvement projects, especially in urban areas, will inevitably have various unavoidable environmental impacts that cannot be fully mitigated through minimization. Therefore, compensatory mitigation will be required, and the agency is committed to pursuing the best opportunities for such mitigation as early in the planning process as possible so the public's investment in any transportation improvement and mitigation is wisely spent and is not reduced through costly delays in the permit process.

For these reasons, WSDOT has developed an environmental investment strategy that utilizes watershed-planning principles and consists of a variety of programmatic approaches to mitigation (including this one for early-action mitigation). These approaches are described here because they relate to, or can be applied in, the process of developing and implementing an early-action environmental impact mitigation proposal.

Environmental Investment Strategy: WSDOT's environmental investment strategy is an approach to environmental impact mitigation that is intended to ensure that transportation projects have an overall benefit to environmental quality in the watersheds where they occur, while reducing costs to the taxpayer. The strategy accomplishes this by a comprehensive use of watershed-based data, an inventory of identified environmental needs, careful review of transportation mitigation obligations, and funding partnerships with local groups such as watershed planning units and salmon recovery groups. In addressing potential environmental impacts, WSDOT embraces the concept of mitigation sequencing. Environmental protection begins with avoidance of impacts, and then proceeds through minimization of impacts, then to compensatory forms of mitigation. By connecting compensatory mitigation needs with watershed restoration needs, we can achieve both enhanced project delivery and environmental benefits. This strategic approach results in net benefit to the environment and net cost savings when compared to traditional (on-site, concurrent) mitigation.

Alternative Mitigation Policy Guidance Interagency Implementation Agreement: This agreement (adopted in response to RCW 77.85.100), describes how to evaluate possible mitigation alternatives on a watershed basis, including off-site, out-of-kind, and conservation mitigation projects. The ability to use alternative mitigation gives state agencies the flexibility to choose projects that will benefit an entire watershed rather than a single site. Often, the alternative brings a greater benefit to the site as well as the surrounding watershed than an in-kind, on-site mitigation effort.

Advance Environmental Mitigation Revolving Account (AEMRA): This account established by the Legislature through RCW 47.12.340 provides a reimbursable fund for mitigation projects (including mitigation banks) for wetlands, fish habitat, fish passage, and flood management. AEMRA allows WSDOT to finance the acquisition and development of mitigation sites in areas where future transportation projects will have an effect on environmental resources. AEMRA allows WSDOT to consider the effects of mitigation on the watershed as a whole. This account

gives WSDOT the ability to do this work before the transportation project impacts occur. The revolving fund is replenished as the transportation projects are constructed.

Watershed Planning: Chapter 90.82 RCW provides a watershed-based framework for addressing water resources (water quality and quantity) and salmon habitat needs. Local governments are encouraged to create watershed committees in each Water Resource Inventory Area (WRIA) to facilitate watershed planning at a grass-roots level. Regional WSDOT representatives participate on these local committees, providing technical expertise and input into the watershed planning process and allowing WSDOT to use the locally determined priorities in identifying potential mitigation sites.

The State Agencies' Action Plan for Salmon Recovery: The Action Plan identifies specific salmon recovery activities that state agencies undertake. This document, published in 2000 by the Governor's Salmon Recovery Office, has 18 elements with major WSDOT participation. Several of these elements are closely tied to watershed efforts, including a basin-wide integrated flood hazard reduction pilot study, and the development and implementation of integrated stream corridor guidelines.

Fish Passage Barrier Removal Program: WSDOT and the Washington State Department of Fish and Wildlife (WDFW) have been conducting a cooperative fish passage barrier removal program since 1991 using WDFW criteria to inventory, assess, prioritize, and correct fish passage barriers on the Washington State highway system. Fifty-nine of 614 barrier culverts have been fixed. WSDOT has also been involved in a joint program with WDFW to grant funds to local governments, tribal entities, and private non-profit organizations for the correction of other fish barrier problems.

Generic Hydraulic Project Approvals: The state hydraulic code provides for the issuance of five-year general hydraulic project approvals (HPAs) for specific activities in a defined geographic area. Transportation activities currently covered by such generic HPAs include debris removal, pier construction, and beaver dam removal.

Programmatic Biological Assessment: To meet the requirements of the Endangered Species Act (ESA) Section 7 (c), as amended, WSDOT is streamlining the consultation process through the creation of programmatic Biological Assessments (PBAs) with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS). One PBA has been approved by the USFWS for WSDOT's Olympic Region and is currently being used. Over 55 preservation and improvement projects of various types have utilized this streamlined consultation approach. Three other PBAs are under negotiation with the USFWS and NMFS.

Wetlands Compensation Banking Agreement: In 1994, WSDOT and various other state and federal agencies finalized the Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement, which establishes the principles and procedures that all signatories to the agreement will adhere to in establishing, implementing, and maintaining a Washington State Department of Transportation Wetland Compensation Bank Program. Since that time, three wetland mitigation bank- sites have been acquired and are being developed. Two banks, the Tietzel and Greenhill, are located in Lewis County and are being developed to provide compensatory mitigation for the proposed I-5 corridor enhancements. The third bank is located in the city of Moses Lake and was developed to provide compensation for

unavoidable wetland impacts in the Columbia Basin. If WSDOT proposes any additional wetland mitigation banks, as expected for early-action mitigation, it will do so in coordination with the Bank Oversight Committee and establish consensus by all participating federal, state, and local agencies when recommendations are made to WSDOT and permit agencies regarding establishment of a wetland mitigation bank or the use of credits from a bank.

Puget Sound Action Plan: The Puget Sound Action Plan, most recently updated in 2000, describes actions necessary to protect water quality and biological resources in the Puget Sound basin. WSDOT participates in the planning process and carries out actions required by the plan. Details are identified in a biennial work plan.

Partnering Workshops: WSDOT staff have conducted partnering workshops for two years. The purpose of the workshops is to provide an opportunity to exchange information and to form partnerships between the Department of Transportation and persons/agencies involved in environmental mitigation, restoration, and enhancement projects.

Uniform Environmental Project Reporting System (UEPRS): The concept for this tool is derived from Substitute House Bill (SHB) 1204. This bill was passed to promote coordination among state agencies that fund or conduct environmental protection, restoration, enhancement, and mitigation activities. UEPRS is a web-based computer application that gives agencies the ability to share pertinent project information, supporting a statewide view of projects that affect the environment. If further funding is made available, UEPRS will be expanded to provide the capability for all state agencies, local governments, tribes, and non-government organizations to work together in forming partnerships to fund projects that benefit the environment. UEPRS can also help WSDOT identify unfunded needs for environmental projects.

Geographic Information Systems (GIS): GIS are databases keyed to geographic coordinates, allowing data (such as environmental information) to be mapped. GIS can provide key information needed to apply a watershed approach. Maps and GIS data layers help transportation planners and policy makers consider environmental data throughout a watershed – or even statewide – prior to beginning projects or revising policies.

Environmental Early Detection. WSDOT is required by state law to identify and document potentially affected environmental resources related to implementation of the Washington Transportation Plan (WTP). Toward this end, the agency is developing an environmental early detection tool. The ultimate goal of this tool is to help make early/long-range policy and planning decisions. It will enable WSDOT regions and Regional Transportation Planning Organizations to use various sources and processes, including a GIS-based analysis process, to obtain the best environmental information available and develop more accurate planning-level cost estimates for use in the WTP. With this tool, WSDOT regional planning offices will have the capability to identify projects with potentially significant environmental concerns earlier in the process than was possible in the past. This tool will provide automated analysis of environmental sensitivities associated with each conceptual solution in the Highway Systems Plan, resulting in a relative environmental ranking (e.g., high, medium, or low) for each project. It will also enable planners to obtain rankings and data for individual environmental disciplines (e.g., wetlands, water quality, fish habitat, etc.), as well as an overall, cumulative assessment of potential environmental concerns for each proposed project.

PROPOSED PROCESS

The early action mitigation will be developed well in advance of project impacts. The intent is to address resources of which WSDOT expects mitigation will be needed (such as water resources, wetlands, floodplains, protected aquatic species and habitat and protected upland species and habitat). This is driven primarily by the regulations and laws guiding the protection of natural resources in the project area. If a species or habitat has protective regulations which would likely trigger mitigation for unavoidable impacts, WSDOT's goal is to be working on this in advance to do the very best job and to help streamline the process of permitting when the time comes.

There are important species and habitats that do not have mitigation requirements specifically outlined by regulations. While there may not be a regulatory driver there, WSDOT does not want to imply that the planning and environmental process will ignore these needs. While priority species and habitats do not as a category have protective regulations requiring mitigation, WSDOT would typically use information on these species as an indicator of high quality habitat and factor that concern into the design of projects and into the approaches taken for project mitigation. WSDOT would seek opportunities where mitigation that is required for one regulation may be accomplished in a way to benefit other resources in addition.

WSDOT has been very progressive protecting rare species and in the last two years, WSDOT has supported research (much or it through WDFW) on lynx, bull trout, spotted frog, mardon skipper, and showy stickseed, to better understand their ecology. WSDOT wants to work closely with resource agencies to identify and responsibly address the environmental effects of transportation project actions.

The proposed process for making decisions on early-action environmental impact mitigation, as presented in this section of the report, builds upon the guidance provided in the Alternative Mitigation Agreement mentioned above, which was developed in response to RCW 77.85.100. According to the agreement, alternative mitigation tools will only be used where they are the best choice for mitigating unavoidable impacts and they are agreed to by the Washington State departments of Ecology, Fish and Wildlife, and Transportation. For this reason, the proposed process is designed to focus on any impacts that may remain after project planning that are likely to be unavoidable and would not be adequately, practicably, or as effectively mitigated through minimization or on-site, in-kind compensatory mitigation, which is typically conceived during the project design and permitting process.[3] Therefore, the proposed process includes steps for determining whether any early-action mitigation will have a greater net environmental benefit than minimization or on-site, in-kind compensatory mitigation and be the best choice for mitigating the unavoidable impacts. The proposed process is also designed to fulfill the goal of the Alternative Mitigation Agreement, which is "to maintain, protect, and enhance the functions of fish and wildlife habitat, wetlands and other waters of the state and to seek a net gain in those functions through restoration, creation, and enhancement." (Although the word "preservation" is omitted here, the agreement also allows preservation, particularly if it is used in combination with the other forms of compensation at the preservation site, or at a separate location.)

[3] WSDOT uses avoidance and minimization during project planning when it cooperates with other agencies in the process of selecting project sites or alternatives to consider, and in the process of deciding between such sites or alternatives for funding and construction, so it is appropriate to think of the impacts as remaining impacts. Also, whether any impacts can actually be avoided, or adequately, practicably, or as effectively mitigated through minimization or on-site, in-kind compensatory mitigation will ultimately be determined in the permit process.

The proposed process also includes a step for obtaining agency agreement on any early-action mitigation, including mitigation banking, and it includes steps for monitoring and determining whether any early-action mitigation has adequately compensated for all of the impacts for which mitigation is required or advisable. In this way, additional mitigation can be identified and proposed for any remaining impacts during the permit process, when WSDOT will again coordinate with these same agencies to develop a mitigation proposal that meets the needs of the agencies and WSDOT.

Finally, state and federal laws require that any proposed discharge of a pollutant not cause or contribute to a violation of state water quality standards for that pollutant at the point of discharge. Therefore, the use of early-action mitigation for water quality impacts is limited to on-site or off-site options that will result in reduced loadings of the pollutant of concern at the point of discharge, and WSDOT intends to limit its use of early-action mitigation for water quality impacts to situations that meet these criteria and satisfy the "Compensatory Mitigation Requirements" for stormwater specified in subsection IV.D.7 of the Alternative Mitigation Policy Guidance Interagency Implementation Agreement (developed in response to RCW 77.85.110). While the proposed early-action mitigation process goes a long way in addressing habitat and wetland issues, it does not go far enough in addressing stormwater and water quality. The early-action mitigation process will be more fully developed to demonstrate under what circumstances it would apply to stormwater and water quality.

The proposed process (which is also shown graphically in Appendix D in the context of an example transportation project development process) will be done in coordination with the resource agencies and involves the following steps:

Phase 1 (before transportation project permitting):

1. Identify the mitigation requirements of all affected agencies with jurisdiction in the project area that pertain to water resources, wetlands, floodplains, protected aquatic species and habitat, and protected upland species and habitat. For I-405, the mitigation requirements and/or review authorities of each agency are (or will be) identified in Appendix E.

2. Identify the reasonable worst-case scenario impacts of the preferred alternative on those resources for which mitigation is required or advisable. (Although mitigation is not required for impacts to ESA-listed species, it may be advisable to limit the degradation of baseline conditions in certain situations to reduce the likelihood of "take" and minimize the risk of "jeopardy", and such actions can contribute to the eventual recovery of listed species.) For the I-405 Corridor Program Preferred Alternative, Appendices B and C summarize the reasonable worst-case scenario impacts on water resources, wetlands, floodplains, protected aquatic species and habitat, and protected upland species and habitat. The first column of the table in Appendix F will be used to identify the specific reasonable worst-case scenario impacts of the Preferred Alternative on those resources for which mitigation would be required or advisable. WSDOT also intends to analyze these impacts in greater detail by using the following methods (listed by resource type) to identify the existing baseline conditions in the area of impact (or a larger area) and the impacts of the proposed projects on the various watershed conditions and resource functions in each watershed:

Resource	Method
Water Resources:	NMFS' Matrix of Pathways and Indicators (MPI)[4] and modeling (the latter to identify specific impacts on project-affected stream segments before mitigation).
Wetlands:	Ecology's Wetland Rating System and WSDOT's Wetland Functions Characterization Tool for Linear Projects
Floodplains:	Estimate flood storage and base flood elevation conditions and impacts using an adopted FEMA method.
Protected Aquatic Species and Habitat:	NMFS' Matrix of Pathways and Indicators (MPI)[4] and analysis of aerial photos, maps, and applicable databases (e.g. priority habitats and species, Integrated Streambank Protection Guidelines, etc.), and other future methods.
Protected Upland Species and Habitat:	Analysis of aerial photos, maps, and applicable databases(e.g. priority habitats and species, Integrated Streambank Protection Guidelines, etc.), and other future methods.

3. Estimate the amount of compensatory mitigation that may be needed in each Water Resource Inventory Area (WRIA) to mitigate the reasonable worst-case scenario impacts that are likely to be unavoidable and would not be adequately, practicably, or as effectively mitigated through minimization or on-site, in-kind compensatory mitigation. For I-405, Appendix F will be used for this purpose. In some cases, the amount of compensatory mitigation needed will exceed the amount lost through impacts of the project, especially if any agencies with jurisdiction have mitigation ratios for compensatory mitigation that exceed one-to-one (1:1). When considering bank instruments, WSDOT will use the 1994 Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement as guidance for wetland banking and develop bank agreements under the guidance and approval of the Bank Oversight Committee.

4. Identify the best practicable restoration, creation, enhancement, and/or preservation activities that can be undertaken to provide the needed amount of compensatory mitigation in a manner that will meet the requirements of each agency with jurisdiction and serve watershed and salmonid recovery needs where appropriate. For I-405, a wide variety of watershed and salmonid recovery projects identified by various groups (some through watershed analyses) are listed in section 3.8 of the FEIS. These projects (along with any other priority projects

[4] U.S. National Marine Fisheries Service, Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Watershed Scale, August 1996.

and/or habitat limiting factors information identified in consultation with the WRIA 8 and 9 planning groups and resource agencies) will be considered in the process of identifying the best function targets and practicable restoration, creation, enhancement, and/or preservation activities that should be undertaken to provide the needed amount of compensatory mitigation.

5. Prepare a draft early-action mitigation proposal in the form of one or more mitigation plans or bank instruments. This document, or these documents, will meet the requirements for mitigation plans specified in the Alternative Mitigation Agreement and identify (and provide a rationale for) any site-specific actions to be taken and state the objectives to be achieved. When considering bank instruments, WSDOT will use the 1994 Washington State Department of Transportation Wetland Compensation Bank Program Memorandum of Agreement as guidance for wetland banking and develop bank agreements under the guidance and approval of the Bank Oversight Committee. For the I-405 Corridor Program, various objectives for early-action and project-level mitigation were developed in cooperation with members of the I-405 Steering Committee, and are listed in the I-405 Corridor Environmental Program (WSDOT, March 2002).

6. Seek agreement on, and permits for, the early-action mitigation proposal, including the level of credit to be available if successful. For the I-405 Corridor Program, WSDOT would seek agreement and/or permits from any agencies that require compensation and/or permits for compensation for any impacts dealt with in the mitigation proposal, or have reviewing authority under the federal Fish and Wildlife Coordination Act. These agencies are identified in Appendix E.

7. Implement the early-action mitigation proposal in accordance with permits.

8. Monitor success of the early-action mitigation and establish the level of credit available.

Phase 2 (during transportation project permitting and construction):

1. Complete any additional environmental analysis that may be required and apply for transportation project permits.

2. Identify the project-level environmental impacts and specify how these impacts will be avoided, minimized, or best compensated for through on-site, in-kind compensatory mitigation or early-action mitigation credits. For the I-405 Corridor Program, Appendix G can be used to identify particular impacts and mitigation measures as shown in the hypothetical analysis of mitigation opportunities presented in Appendix H. Also, any determinations as to whether any off-site compensatory mitigation will have a greater environmental benefit than minimization or on-site, in-kind compensatory mitigation can be made after considering the compensatory mitigation requirements specified in the Alternative Mitigation Agreement and applying best professional judgment.

3. Implement any additional mitigation required by agencies with jurisdiction that is not provided through the use of early-action mitigation credits authorized in permits.

4. Construct the transportation project(s) in accordance with permits.

5. Monitor impacts and apply adaptive management. Monitor impacts and apply adaptive management in accordance with adopted procedures.

NEXT STEPS

WSDOT has requested that the I-405 Corridor Program Steering Committee concur with the "mitigation concept" that has been developed. That concept (also known as the "Corridor Environmental Program") includes the proposed early-action environmental impact mitigation decision-making process described in this report, which is included in the FEIS for the overall Corridor Program. After concurrence is obtained, WSDOT plans to seek agreement on the proposed process from all of the state and federal agencies with jurisdiction over the types of impacts dealt with in the report. WSDOT will use the agreed-upon process to develop an early-action mitigation proposal to mitigate various unavoidable impacts of the preferred alternative in advance of project permitting and construction. The process and methods described in this appendix will evolve and be refined as WSDOT continues to consult with local, state, and federal agencies on appropriate compensatory mitigation.

Appendices for Appendix J

A - Glossary of Key Terms

B - Summary of I-405 Corridor Program Preferred Alternative Impacts

C - Possible Mitigation

D - Proposed Early-Action Environmental Impact Mitigation Decision-Making Process Flowchart

E - Agency Mitigation Requirements

F - Compensatory Mitigation Needs Per WRIA

G - Opportunities to Avoid, Minimize or Otherwise Mitigate Impacts

H - Hypothetical Analysis of Opportunities to Avoid, Minimize or Otherwise Mitigate Impacts

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APPENDIX A OF APPENDIX J. GLOSSARY OF KEY TERMS

"**Alternative mitigation**" means any off-site, in-kind; on-site, out-of-kind; or off-site, out-of-kind compensatory mitigation, including but not limited to mitigation banking and in-lieu trading of mitigation credits. This may involve restoring an environmental condition through actions at another location (e.g., upstream) or replacing one type of resource or function with another (e.g., mitigating impacts to a scrub-shrub wetland by creating riparian habitat).

"**Avoidance**" means avoiding the impact altogether by not taking a certain action or parts of an action. [Alternative Mitigation Agreement adopted pursuant to RCW 77.85.100]

"**Compensation**" or "**compensatory mitigation**" means the restoration, creation, enhancement, or preservation of uplands, wetlands, or other aquatic resources for the purposes of compensating for unavoidable adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved. "Compensatory mitigation" includes mitigation that:

(a) Occurs at the same time as, or in advance of, a project's planned environmental impacts;

(b) Is located in a site either on, near, or distant from the project's impacts; and

(c) Provides either the same or different biological functions and values as the functions and values impacted by the project. [RCW 90.74.010(2)]

"**Early-action environmental impact mitigation**" means any restoration, creation, enhancement, or preservation activities undertaken, or proposed to be undertaken, in advance of a project's planned environmental impacts as compensation for impacts that are likely to be unavoidable and would not be adequately, practicably, or as effectively mitigated through minimization or on-site, in-kind compensatory mitigation undertaken concurrent with project construction.

"**In-kind mitigation**" means replacing the same species, habitat type, and function as those affected. [Alternative Mitigation Agreement adopted pursuant to RCW 77.85.100]

"**Minimization**" means minimizing impacts by limiting the degree or magnitude of the action and its implementation. [Alternative Mitigation Agreement adopted pursuant to RCW 77.85.100]

"**Mitigation**" means sequentially avoiding impacts, minimizing impacts, or compensating for remaining unavoidable impacts. [RCW 90.74.010(1)]

"**Mitigation banking**" means compensatory mitigation that has been assigned credit in advance of any permits authorizing project impacts.

"**Mitigation plan**" means a document or set of documents developed through joint discussions between a project proponent and environmental regulatory agencies that describe the unavoidable wetland or aquatic resource impacts of the proposed infrastructure development and the proposed compensatory mitigation for those impacts. [RCW 90.74.010(4)]

"**No net-loss**" means no overall reduction in the acreage or function of uplands, wetlands, or other aquatic resources of a particular type.

"No significant impact" means no reasonable likelihood of more than a moderate adverse impact on environmental quality. [reverse of "significant" as defined in WAC 197-11-794]

"**Off-site**" means outside of the area from where the impact has occurred. [Alternative Mitigation Agreement adopted pursuant to RCW 77.85.100]

"**On-site**" means on or adjacent to the impact site or in the same stream reach based on resource needs. It is not limited to property ownership or city/county boundaries that do not restrict the needs and uses of the resources. [Alternative Mitigation Agreement adopted pursuant to RCW 77.85.100]

"**Out-of-kind**" means species, habitat types, and/or functions that are different than those at the impact site. [Alternative Mitigation Agreement, adopted pursuant to RCW 77.85.100]

"**Practicable**" means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. [40 CFR 230.3(q) and RCW 90.84.010(7)]

"**Protected**" means afforded protection by federal, state, or local laws or regulations."**Water Resource Inventory Area**" or "**WRIA**" means a water resource inventory area established in chapter 173-500 WAC as it existed on January 1, 1997. [RCW 77.85.010(10) and RCW 90.82.020(4)]

"**Watershed**" means a water resource inventory area. [RCW 47.060C.020(10)]

APPENDIX B OF APPENDIX J.
SUMMARY OF IMPACTS OF THE I-405 CORRIDOR PROGRAM PREFERRED ALTERNATIVE ON WATER RESOURCES, WETLANDS, FLOODPLAINS, PROTECTED AQUATIC SPECIES AND HABITAT, AND PROTECTED UPLAND SPECIES AND HABITAT

Element / Type of Impact	Impacts of the Preferred Alternative[1]
Water resources:	
Potential to degrade water quality during construction	Potential serious, short-term degradation of surface water quality
Acres of new impervious area	974
Loss of groundwater recharge area (in acres)	487
Potential for operational impacts to surface water	Potential for substantial adverse impacts to surface water resources
Potential for operational impacts to groundwater	Potential for impacts to quality or supply is low and not substantial
Wetlands:	
# of wetlands potentially affected	150 unique; 85 composite
# of high priority wetlands potentially affected	79 unique; 36 composite
Wetland area potentially affected (acres)	~ 25 acres
Floodplains:	
Flood storage loss	Not determined
100-year floodplains affected	Approximately 14
100-year floodway crossings	Approximately 45
Lineal feet of floodplain impact	Approximately 50,000
Protected aquatic species and habitat:	
Riparian encroachments	330
Acres of new impervious area (# of basins affected)	974 (18 of 19 sub-basins in the study area)
Protected upland species and habitat:	
Lineal feet of bald eagle territory impacted	60,880
Lineal feet of urban natural open space affected	49,020
Lineal feet of riparian habitat affected	13,560

[1] Impacts listed for the Preferred Alternative include those of the No Action Alternative. The No Action Alternative includes committed or funded capital improvement projects belonging to cities, counties, Sound Transit and WSDOT. Therefore, mitigation associated with the No Action Alternative impacts may not be implemented by WSDOT as part of the I-405 Corridor Program.

APPENDIX C OF APPENDIX J. POSSIBLE MITIGATION FOR IMPACTS OF THE I-405 PREFERRED ALTERNATIVE ON WATER RESOURCES, WETLANDS, FLOODPLAINS, PROTECTED AQUATIC SPECIES AND HABITAT, AND PROTECTED UPLAND SPECIES AND HABITAT

Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
Section 3.5 Water Resources No Action Alternative	The projects proposed under the No Action Alternative would have the potential to temporarily degrade water quality during construction. One of the basins could suffer serious short-term water quality degradation due to a combination of its sloping nature and the relatively high number of projects proposed for construction (five or more) within its boundaries. The No Action Alternative would result in 173 acres of new impervious surface within the study area, a 0.1 percent increase across the entire study area. The proposed road projects under this alternative would result in an increase in runoff to local drainage systems and streams. The No Action Alternative is estimated to eliminate 104 acres of groundwater recharge area. The potential for operational impacts to degrade groundwater quality or to decrease groundwater supply under normal conditions is low and not substantial, with the exception of a traffic accident spilling hazardous pollutants, in which case impacts to groundwater quality could be substantial.	Note: Impacts of the action alternatives include those of the No Action Alternative. The No Action Alternative includes committed or funded capital improvement projects belonging to cities, counties, Sound Transit, and WSDOT. Therefore, mitigation for the No Action Alternative impacts may not be implemented by WSDOT as part of the I-405 Corridor Program. For those that are implemented by WSDOT, see mitigation for the action alternatives.
Alternative 1	Alternative 1 projects would have the potential to temporarily degrade water quality during construction. Eight of the stream basins would potentially suffer serious, short-term water quality degradation due to a combination of their sloping nature and the relatively high number of projects proposed for construction. Alternative 1 would result in 478 acres of new impervious surface within the study area, a 0.4 percent increase. Alternative 1 is estimated to eliminate 215 acres of groundwater recharge area. Additional long-term traffic through sensitive areas would increase the potential for groundwater contamination via the spill and leak mechanisms. Additional impervious surface area would also increase the potential for contamination because more rainfall runoff may pick up contaminants and reach permeable soils if runoff water is not contained. The potential for Alternative 1 operational activities to adversely impact groundwater quality is therefore rated as moderate. Although some potential exists for operational activities to impact groundwater quality and quantity, the impacts that may occur are not substantial under normal operating conditions. However, in the event a traffic accident occurred which spilled hazardous pollutants, impacts to groundwater quality could be substantial.	The following possible mitigations measures generally apply to all of the alternatives. Best management practices such as installing fencing, landscaping, erosion matting, hydro mulching, soil imprinting, hay bales, detention/sediment trap basins, and vegetated fringes will be used as appropriate. WSDOT would use the most current criteria and standards to mitigate stormwater quantity and quality impacts of the selected alternative. These standards will be presented in a WSDOT stormwater or highway runoff manual that will be functionally equivalent to Ecology's stormwater manual. These revisions are expected to address specific issues related to fish, especially chinook salmon. Construction disturbance will be limited to the smallest area practical. Clearing activities will be staged such that construction areas are cleared no more than one week ahead of the start of construction. If this is impractical, cleared areas will be mulched, covered with plastic, or otherwise stabilized. For projects constructed within 300 feet of a lake or stream, or

Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
		where concentrated construction site discharge may flow directly to surface waters, all site grading and initial stabilization could be scheduled to occur only during the dry season, May 1 through September 30. Where construction must occur within stream channels, such construction will occur "in the dry," whereby streamflow is temporarily diverted around the work site, where practicable, to prevent turbidity. If other construction activities occur during the wet season, such as subgrade or pavement installation, utilities placement, or curbs and sidewalks, a plan will be developed that: • Limits disturbed area activities to a maximum of 48 hours at any single location. • Has provisions for temporarily ceasing construction and quickly stabilizing a site when rainfall greater than one-half inch in a 12-hour period is measured at the site. • Uses alternative means for treating construction site runoff such as spray application or overland flow across a vegetated surface, or use of coagulants in the sediment ponds. If coagulants are used, then a nontoxic compound will be used, such as an ionic acrylamide. Grassed road embankments and biofiltration swales will be utilized wherever practical to maximize treatment of road runoff. Where new stream crossings are proposed, the design will consider opportunities to minimize the number of crossings by measures such as co-siting on-ramps and off-ramps. Planning for all major road upgrade projects would consider the practicality of retrofitting existing impervious road surface areas for runoff detention and treatment. Where determined to be practicable, retrofit measures will be budgeted into the road upgrade project. Any new road crossings of streams will be via a bridge spanning the 100-year floodplain unless a hydraulic analysis demonstrates that infringing abutments and/or bridge piers would not substantially change local high-water depths or velocities. Where practical, disturbed riparian areas within road right-of-way will be planted with native vegetation for a minimum width of 100 feet from each stream bank.

Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
		Opportunities to increase the "perviousness" of impacted stream basins will be explored in cooperation with local agencies; these include replacing low-intensity-use paved areas (parking lots, sidewalks, walking-bicycle paths, etc.) with porous pavement and/or underground retention systems. Deep-tillage of playfields, parks, lawns, and other landscape surfaces with amended soils can also be effective in reducing runoff. Pervious portions of the study area will be treated with soil amendments, mulch, and vegetation to help absorb stormwater rather than discharge stormwater to surface waters. All stormwater management facilities will be located outside of stream, steep slope, and wetland buffer areas. The I-405 Corridor Program will continue to work closely with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), the Washington State Department of Fish and Wildlife (WDFW), Ecology, the Tribes, local municipalities, and basin stakeholders to develop a program of support for both local and regional stream enhancement projects. Groundwater: Mitigation measures to decrease the potential for groundwater contamination in the sensitive areas are based on minimizing the use of hazardous materials in the areas. During construction, mitigation measures include: • Re-fueling and maintenance of construction vehicles will not occur within 100 feet from the edge of any sensitive areas. More restrictive measures may be required where ESA species would be impacted. Refueling will follow the Guidelines for Mobile Fueling of Vehicles and Heavy Equipment in Chapter III of the 2001 Ecology Stormwater Manual or functionally equivalent stormwater guidance. • Hazardous materials will not be stored closer than 300 feet to any stream, wetland, or other sensitive area at the project site. Where hazardous materials must be temporarily stored at the project site, secondary containment will be provided. • A project staging area will be located outside of the sensitive areas for vehicle fueling and storage of construction-related hazardous materials. The area will be

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		designed to capture all runoff and/or spills. • Runoff from construction areas will be collected and treated and/or discharged consistent with Ecology's Stormwater Manual or functionally equivalent stormwater guidance. Measures to protect Renton's Aquifer Protection Area from infiltration of project runoff will be implemented. • A plan for hazardous material spill response will be developed. • Fill will not contain hazardous materials or materials that could adversely affect upland and/or aquatic species due to leaching or bioaccumulation. Measures for mitigation of operational impacts to groundwater quality are also based on preventing hazardous materials from reaching soil and infiltrating into groundwater. These measures include: • Runoff from construction areas will be collected and treated and/or discharged consistent with Ecology's Stormwater Manual or functionally equivalent stormwater guidance. Measures to protect Renton's Aquifer Protection Area from infiltration of project runoff will be implemented. • Spill prevention, control, and countermeasure plans will be developed and will include local, state, and federal emergency contact information. • Barriers will be placed at the sides of roads within WHPAs, SSAs, and high CARAs to prevent spills from reaching soils. The last two measures may be applied specifically to address the substantial potential for groundwater contamination that could occur under the rare traffic accident chemical spill scenario. To mitigate the potential decrease in groundwater recharge in CARAs and other potential recharge areas during construction, stormwater that might have been collected and conveyed to areas outside the CARAs can be re-infiltrated. In this scenario, the mitigation measures will include some form of treatment to ensure that groundwater quality is not adversely affected, such as the use of bioswales or infiltration ponds. Other measures for mitigating long-term loss of recharge to aquifers include:

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		• Decreasing slopes of areas not covered with impervious surfaces. • Planting vegetation in cleared areas. • Providing adjacent infiltration areas where large areas of impervious surfaces are unavoidable; in other words, interspersing pervious areas among the impervious areas to allow recharge via infiltration of rainwater. Runoff from construction areas will be collected and treated and/or discharged consistent with Ecology's Stormwater Manual (2001) or functionally equivalent stormwater guidance. Measures to protect Renton's Aquifer Protection Area from infiltration of project runoff will be implemented. Additional mitigation measures may be achieved by following the design guidelines in the local sensitive area ordinances (such as measures to prevent erosion) and local erosion codes, such as Renton's dealing with Aquifer Protection Areas. To mitigate the depletion of groundwater supplies via construction dewatering or pump testing, the groundwater that is removed may be re-infiltrated, provided programs are in place to test for and/or treat the groundwater to remove hazardous materials that may have come in contact with the groundwater. The eastern extension of the HCT to Issaquah lies within the Lake Sammamish Basin. Projects constructed within this basin would require special stormwater treatment to reduce phosphorus.
Alternative 2	Alternative 2 projects would have the potential to temporarily degrade water quality during construction. Under Alternative 2, 11 of the stream basins would potentially suffer serious, short-term water quality degradation due to a combination of their sloping nature and the relatively high number of projects proposed for construction. Six basins could experience long-term impacts to base flow and one basin would suffer water quality impacts. Alternative 2 would result in 820 acres of new impervious surface within the study area, a 0.6 percent increase across the entire study area.	See Alternative 1.The eastern extension of the HCT to Issaquah lies within the Lake Sammamish Basin. Projects constructed within this basin would require special stormwater treatment to reduce phosphorus. A WRIA-wide approach to mitigation of the program hydrologic impacts should be considered as a means to address base flow impacts in a more ecologically beneficial and cost-effective manner.

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	Alternative 2 is estimated to eliminate 410 acres of groundwater recharge area. The potential for Alternative 2 operational activities to adversely impact groundwater quality is rated moderate, but the relative extent of impacts is higher than for Alternative 1 and the No Action Alternative. Although some potential exists for operational activities to impact groundwater quality and quantity, the impacts that may occur to groundwater quality and quantity are not substantial under normal operating conditions. However, in the traffic accident scenario, impacts to groundwater could be substantial.	Groundwater: Same as Alternative 1.
Alternative 3	Alternative 3 projects would have the potential to temporarily degrade water quality during construction. Under Alternative 3, 10 of the stream basins would potentially suffer serious, short-term water quality degradation due to a combination of their sloping nature and the relatively high number of projects proposed for construction. Three basins could experience long-term impacts to base flow. Alternative 3 would result in 773 acres of new impervious surface within the study area, a 0.6 percent increase. Alternative 3 is estimated to eliminate 387 acres of groundwater recharge area. The potential for Alternative 3 operational activities to adversely groundwater quality is rated moderate, with the relative extent of impact approximately equal to that for Alternative 2. Although some potential exists for operational activities to impact groundwater quality and quantity, the impacts that may occur to groundwater quality and quantity are not substantial under normal operating conditions. However, in the traffic accident scenario, impacts to groundwater could be substantial.	Stormwater: See Alternative 1. Wherever soil tests and site conditions demonstrate the practicability, infiltration of treated stormwater will be utilized. This mitigation is particularly applicable to South Kelsey and North Creek Basins. In addition, where practicable WSDOT and the affected municipalities would commit to projects benefiting the hydrology and habitat of these streams as measures to compensate for potential reductions in stream base flow resulting from proposed road improvements. In addition, a WRIA-wide approach to mitigation of the program hydrologic impacts will be considered as a means to address base flow impacts in a more ecologically beneficial and cost-effective manner. Groundwater: Same as Alternative 1.
Alternative 4	Alternative 4 projects would have the potential to temporarily degrade water quality during construction. Under Alternative 4, 10 of the stream basins would potentially suffer serious, short-term water quality degradation due to a combination of their sloping nature and the relatively high number of projects proposed for construction. Seven basins could experience long-term impacts to base flow and one basin would suffer water quality impacts. Alternative 4 would result in 1,061 acres of new impervious surface within the study area, a 0.8 percent increase across the entire study area. Alternative 4 is estimated to eliminate 531 acres of groundwater recharge area. The potential for Alternative 4 operational activities to adversely impact groundwater quality is rated moderate. The extent of impacts would be similar to those for Alternative 3, with a slightly shifted distribution. Although some potential exists for operational activities to impact groundwater quality and quantity, the impacts that may occur to groundwater quality and quantity are not substantial under normal operating conditions. However, in the traffic accident scenario, impacts to groundwater could be substantial.	Stormwater: See Alternative 1. Projects constructed within the Lake Sammamish Basin would require special stormwater treatment to reduce phosphorus. Wherever soil tests and site conditions demonstrate the practicability, infiltration of treated stormwater will be utilized. This mitigation is particularly applicable to those basins which may otherwise experience depletion of base flows: Springbrook, South Kelsey, East Lake Washington, Forbes, Juanita, and North Creek. In addition, where practicable WSDOT and the affected municipalities would commit to projects benefiting the hydrology and habitat of these streams as measures to compensate for potential reductions in stream base flow resulting from proposed road improvements. In addition, a WRIA-wide approach to mitigation of the program hydrologic impacts will be considered as a means to address base flow impacts in a more ecologically beneficial and cost-effective manner.

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		Groundwater: Same as Alternative 1.
Preferred Alternative	Preferred Alternative projects would have the potential to temporarily degrade water quality during construction. Under the Preferred Alternative, 13 of the stream basins would potentially suffer serious, short-term water quality degradation due to a combination of their sloping nature and the relatively high number of projects proposed for construction. Six basins could experience long-term impacts to base flow and one basin would suffer water quality impacts. The Preferred Alternative would result in 974 acres of new impervious surface within the study area - a 0.7 percent increase. The Preferred Alternative is estimated to eliminate 487 acres of groundwater recharge area. The potential for the Preferred Alternative operational activities to adversely impact groundwater quality is rated moderate, with the relative impact between Alternatives 3 and 4.	Stormwater: See Alternatives 1 and 3. The mitigation measures presented for Alternative 4 would be applicable for the Preferred Alternative. Infiltration of treated stormwater will be emphasized in the following basins as a measure to mitigate depletion of base flow: East Lake Washington, Juanita, Springbrook, South Kelsey, and North Creeks. Groundwater: Same as Alternative 1.
Section 3.6 Wetlands No Action Alternative	The No Action Alternative would potentially impact 25 wetland complexes, including 9 High Priority (HP) wetland complexes, totaling approximately 3 acres of encroachment. This is the lowest number of HP wetland complexes and the least area affected of any alternative. Most No Action Alternative improvements near HP wetlands occur in Redmond, Woodinville, and Renton. Committed arterial projects would impact the greatest number of wetlands of all project types in this alternative. Arterial committed projects would affect 14 wetland complexes, 6 of which are HP wetlands. No new roads are proposed in this alternative; therefore, the potential for this alternative to fragment wetland habitat is low. This alternative also results in the lowest increase in impervious surface of all the alternatives. Pollutant loading and overall impacts to wetlands from the improvements were judged to be below the threshold of significance. Retrofitting of existing stormwater facilities could occur in conjunction with many of the projects.	The following mitigation measures generally apply to all alternatives. Because wetland functions generally vary between HP and LP wetlands, mitigation needs also vary. HP wetlands generally require higher mitigation ratios than LP wetlands. Implementing mitigation prior to wetland disturbance may help minimize temporary losses of wetland functions, although it may take 10 or more years for wetlands to mature enough to fully replace lost functions. While impacted wetlands within the study area may not provide all of their historic functions, they remain a valuable and sometimes irreplaceable resource. Because of this, the focus during project design and any early-action mitigation will be to implement the following steps for all wetlands regardless of a wetland's priority status (HP or LP): The sequential steps generally taken in the wetland mitigation process are: • Avoiding impacts. • Minimizing impacts.

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		• Restoring the impacted environment. • Reducing impacts over the life of the project using preservation and maintenance operations. • Compensating for unavoidable adverse impacts by replacing the affected environment or providing substitute resources. • Monitoring the impacted environment and taking appropriate corrective measures as needed. Project-level design or early-action mitigation will consider these factors to assure that the appropriate mitigation approach is implemented. Mitigation will be implemented prior to wetland impacts where feasible, to reduce temporary losses of wetland functions (Appendix J). Sufficient property is anticipated to be available within the study area for mitigation. In some highly developed watersheds, suitable vacant parcels available for mitigation may be rare. Identification of available parcels for mitigation will be dependent upon specific real estate conditions and will be undertaken during project-level analysis. Mitigation sites should provide connectivity with the remaining wetlands within the basin whenever possible, although isolated wetlands in highly developed areas are not without value, as they provide habitat for urban wildlife. Finding non-wetland property in proximity to a suitable hydrologic source will be increasingly difficult under increased development pressure. In some instances, out-of-kind watershed restoration may provide adequate or even higher levels of wetland/watershed functions than in-kind wetland replacement. While out-of-kind restoration is a potential option for each alternative being analyzed, its value would be assessed on a case-by-case basis. Mitigation banking will be an option where on-site mitigation is not possible or is less environmentally beneficial. Mitigation banking would allow acquisition of credits, which go toward enhancing, creating, or restoring wetlands at a designated site. Once the wetland is created and functioning, these credits would compensate for unavoidable wetland impacts. The bank creators, or sponsors, assume responsibility for maintaining the wetlands in perpetuity or they could sell the site to another

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		owner, who would then assume responsibility. Banking may only occur if the wetland impacts could not be avoided or minimized to an acceptable level on-site. Regional wetland mitigation facilities may have the potential to improve many wetland functions, particularly fish-rearing habitat, peak flow attenuation, large habitat areas with limited disturbance and edge area, and low flow augmentation. Because of the typically large number of oftentimes-small wetland impacts associated with linear transportation projects, there may exist the opportunity for regional wetland restoration or enhancement. However, the specific functions appropriate for restoration and/or enhancement would depend upon the particular mix of transportation elements and projects chosen as the preferred alternative. Combining such impacts into a few regional restoration projects may not be practicable. Opportunities for restoration are highly site-specific, depending greatly upon the functions provided by the existing watershed conditions, and thus specific parcels for wetland restoration or mitigation have not been identified. This early analysis assumes that avoiding wetlands altogether is the first step in the mitigation process. Project-level impact analysis will evaluate how some operational impacts will be mitigated. For instance, road impacts to wetlands may be avoided or minimized by using methods other than widening at the surface (e.g., stacking lanes or tunneling) where practicable to increase capacity in the vicinity of environmentally sensitive or important areas. Measures to avoid and minimize increases in impervious surfaces and increased stormwater runoff so as to not alter wetland hydrology in downstream reaches will be incorporated through project-level design where practicable. Some typical avoidance measures to be contemplated include: • Using or lengthening bridges to cross streams and their associated riparian corridors and wetlands; • Using retaining walls to reduce or eliminate lateral extensions of road embankment slopes into wetlands; • Using guardrails to increase the grade of embankments and avoid wetland fill;

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		• Stacking or constructing viaducts; and • Constructing tunnels. Best management practices (BMPs) will be utilized to minimize sedimentation, and contamination. These practices will include procedures such as sediment fences, check dams, temporary seeding, mulching, jute netting, phased construction, and construction during less sensitive seasons where appropriate. Stormwater treatment facilities will be designed consistent with the Ecology stormwater manual or functionally equivalent stormwater guidance, such as WSDOT's highway runoff manual. Mitigation locations and concepts will be identified during the permitting for specific projects and during possible early-action mitigation activities (See Appendix J of this EIS). WSDOT has met and will continue to meet with state and local agencies to identify mitigation priorities and options, and to discuss opportunities for on-site mitigation and mitigation banking. Another option that could be utilized on a case-by-case basis is replacing lower value roadside emergent wetlands with high value streamside wetlands. Although roadside wetlands provide water quality, groundwater recharge, and stormwater retention functions, replacing them at high ratios would not always be advantageous. Many of these roadside wetlands are dominated by invasive species such as reed canarygrass and can successfully and quickly be replaced (unlike forested wetlands). Since the availability of streamside wetlands that provide refugia for salmonids is often a limiting factor in Puget Sound Lowland streams, shifting part of the mitigation ratio to high value wetlands that provide other critical functions may be a viable option in some cases. An example of such a scenario is if 1 acre of roadside emergent wetlands were to be filled and the mitigation ratio were 2.5:1. Under this scenario, 2.5 acres of new roadside emergent wetlands could be required to mitigate for the impacts. However, the roadside emergent wetland could be replaced at a 1:1 ratio, with the remaining 1.5 acres of mitigation going toward addressing other basin needs. In this scenario 1.5 acres of streamside wetlands could also be created. WSDOT is currently working on an *Early-Action*

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		Environmental Impact Mitigation Decision-Making Process that will help guide the mitigation process and align WSDOT mitigation needs with various watershed and salmonid recovery needs (Appendix J; Smith, 2002). **ation** Specific mitigation can not be defined at the programmatic level of analysis. This is a result of uncertainties in the actual amount and type of wetland impacts, amount and type of required mitigation, variation in existing opportunities for mitigation in each basin, and early stage of coordination with affected jurisdictions. Furthermore, impact reduction measures to be developed during the project design phase will reduce the amount of required mitigation. See additional language in Section 3.6.5.1.
Alternative 1	Alternative 1 would potentially impact 76 wetland complexes, including 30 High Priority wetlands, totaling approximately 29 acres of fill. This is the lowest number of High Priority wetlands and least area affected of the action alternatives except the Preferred Alternative. Approximately 17 acres of wetland impacts are associated with the HCT improvements. While some part of the HCT system proposed under this alternative may fragment wetlands, much of the new construction presents opportunities to avoid wetlands. The potential for this alternative to fragment wetland habitat is consequently low to moderate. The amount of construction required for this alternative, while greater than that required for the No Action Alternative, would be considerably less than for the other action alternatives except for the Preferred Alternative.	See No Action Alternative.
Alternative 2	Alternative 2 would potentially impact 110 wetland complexes, 38 of which are High Priority wetlands, totaling approximately 56 acres of fill. This is the highest number of High Priority wetland complexes impacted of any alternative. Widening SR 167 from I-405 to the study area boundary has the most potential to substantially alter wetlands/wetland buffers, and could impact approximately 22 acres of wetlands. As was the case in Alternative 1, Alternative 2 could impacted an additional 17 acres of wetlands as a result of HCT improvements. Some impacts associated with riparian wetland crossings (e.g., the North Creek, Black River, or the Sammamish River) would likely be unavoidable. The potential for this alternative to fragment wetland habitat is high in comparison to the other action alternatives. Impervious surface area is nearly twice that of Alternative 1. Many of the impacts associated with Alternative 2 would be unavoidable, as they are expansions or additions to existing roads and realignment would not be practical.	See No Action Alternative.
Alternative 3	Alternative 3 would potentially impact 96 wetland complexes, including 34 High Priority wetlands, totaling 40 acres of fill. This is the second lowest number of High Priority wetlands impacted of the action alternatives, but the second highest area affected by fill due to widening of SR 167 from I-405	See No Action Alternative.

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	to the study area boundary. Potential for this alternative to fragment wetland habitat is moderate to high, while opportunities to avoid wetlands by realigning proposed roads would be few.	
Alternative 4	Alternative 4 is similar to Alternative 3 in that it would also potentially impact 96 wetland complexes, including 36 High Priority wetlands, totaling 39 acres of wetland area filled. This is the second highest number of High Priority wetlands impacted but identical to the Preferred Alternative, and the second greatest area affected of any alternative due to the widening of SR 167 from I-405 to the study area boundary. Thus there is great potential for wetlands fragmentation, coupled with little opportunity to avoid wetlands by altering proposed alignments. The greatest area of impervious surface would be added in this alternative.	See No Action Alternative.
Preferred Alternative	The Preferred Alternative would potentially impact 85 wetland complexes, including 36 High Priority wetlands, totaling 25 acres of wetland area filled. The number of High Priority wetland complexes impacted is the same as Alternative 4, but the lowest acreage affected of any action alternative due to the absence of HCT improvements and reduction in length of widening of SR 167. Thus there is less potential for wetlands fragmentation than other alternatives. The second greatest area of impervious surface would be added in this alternative.	See No Action Alternative.
Section 3.7 Wildlife, Habitat, and Upland Threatened and Endangered Species No Action Alternative	For all alternatives, priority habitats identified within the analysis area include freshwater wetlands, riparian zones, bald eagle territory, great blue heron habitat, pileated woodpecker habitat, waterfowl concentration areas, and urban natural open space. Much of the urbanized portion of the study area is inhabited by species typical of developed areas. The prevalence of development and landscape maintenance activities in these areas has resulted in the predominance of species adapted to degraded and disturbed habitats. The WDFW (2000) identifies five bald eagle territories, five patches of pileated woodpecker habitat, one occurrence of osprey habitat (a state Monitor species) one area for western pond turtles (State Endangered, Federal Species of Concern), and great blue heron (a WDFW Priority species) rookery. Most of the habitat area encountered falls within right-of-way. These areas typically have low habitat value to wildlife and are generally highly disturbed. Wildlife could occasionally occupy these areas; however, such occurrence is likely to be short-term. For the No Action Alternative, the alternative could affect up to 3,600 linear feet of habitat located within bald eagle territories and 12,200 linear feet of urban natural open space, and no riparian habitat. The No Action Alternative is not expected to have substantial adverse impacts on upland vegetation, habitat, wildlife, or endangered/threatened species. Most of the corridor is at or near	The following mitigation measures generally apply to all alternatives where appropriate to the project. Measures for mitigating impacts may include: • Implementing timing restrictions on construction could be implemented to protect bald eagle nesting habitats; • For projects located within 0.25 mile of any bald eagle nests or roosts or within 800 feet of any great blue heron rookeries, WSDOT will work with WDFW to develop management plans to avoid and minimize impacts which may occur during construction and operation of the project. (Typical avoidance and minimization strategies may include timing restrictions during construction, installation of noise barriers, protection of perch trees, and installation or establishment of visual barriers.);

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	buildout and the opportunity for future development is limited.	• Providing wildlife access corridors under roadways as a measure to reduce the affects of habitat fragmentation by maintaining connectivity between habitats; and • Revegetating roadsides and construction zones with native plants to offset loss of habitat from construction. Other construction mitigation measures will also be employed. Needs and measures will be evaluated at the project level.
Alternative 1	Alternative 1 could affect 43,100 linear feet of urban natural open space resulting in habitat loss from the installation of the HCT system and disturbance to the periphery of habitats. The alternative could impact 40,100 linear feet[a] of bald eagle territory and 12,340 linear feet of riparian area, and construction would occur within 0.3 mile of one bald eagle nest.	Same as No Action Alternative.
Alternative 2	Alternative 2 would encounter 48,960 linear feet of urban natural open space could affect 54,160 linear feet[a] of habitat within bald eagle territories, and would impinge on 20,900 linear feet of riparian habitat.	Same as No Action Alternative.
Alternative 3	Alternative 3 could affect 52,300 linear feet of urban natural open space and 41,260 linear feet[a] of bald eagle territory (one bald eagle nest could experience increased noise disturbance), and could encroach on 13,560 linear feet[a] of riparian habitat.	Same as No Action Alternative.
Alternative 4	Alternative 4 encounters 33,900 linear feet of urban natural open space and 50,460 linear feet[a] of bald eagle territory, and could encroach on 11,120 linear feet[a] of riparian habitat.	Same as No Action Alternative.
Preferred Alternative	The Preferred Alternative encounters 49,020 linear feet of urban natural open space and 60,880 linear feet[a] of bald eagle territory and could encroach on 13,560 linear feet[a] of riparian habitat.	Same as No Action Alternative.
Section 3.8 Fish and Aquatic Habitat		
No Action Alternative	The I-405 corridor study area lies entirely within two major watersheds: mostly within the Cedar River/Lake Washington (200 square miles and hundreds of tributaries) and a small portion within the Green Watershed. The Puget Sound chinook salmon and bull trout are listed as "threatened" under ESA and occur in both watersheds. Bull trout migrate through the study area, but bull trout spawning has been documented only in locations far upstream. Coho salmon, a "candidate" species for federal listing is present in the major streams of the study area. The No Action Alternative would create 74 new riparian encroachments, which is less than one-third	Note: The No Action Alternative includes committed or funded capital improvement projects belonging to cities, counties, Sound Transit and WSDOT as part of the I-405 Corridor Program. For those that are implemented by WSDOT, see mitigation for the action alternatives. The following mitigation measures generally apply to all

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	the number of any of the action alternatives. Fifty-one of these would occur in the Sammamish Basin and no more than six would occur in any of the other basins. The No Action Alternative would increase impervious surface in the study area basins by 0.1 percent. This percentage represents 173 acres of new impervious surface. The greatest increase would occur in the North Creek Basin, followed by the Sammamish River, Little Bear Creek, Mercer Slough, Cedar River, Swamp Creek, and Juanita Creek basins. No increase is expected for the Bear Creek, Forbes Creek, Kelsey Creek, Lower Green River, and North Lake Washington basins. The *I-405 Corridor Program Draft Surface Water Resources Expertise Report* (CH2M HILL, 2001) concluded that no substantial direct effects on hydrology or water quality are expected under this alternative.	alternatives where appropriate.
Alternative 1	Alternative 1 would result in 261 riparian encroachments, substantially fewer riparian encroachments than other action alternatives. This indicates substantially less potential for direct construction impacts to fish habitats and populations. Alternative 1 would add 478 acres of new impervious area to the study area basins for a 0.3 percent increase above the No Action Alternative. The Black River, Mercer Slough, Sammamish River, East Lake Washington, and North Creek basins would experience the greatest increases. For the West Lake Sammamish Basin, this alternative would create the most impervious surface of any alternative. No substantial effects on hydrology or water quality are expected under this alternative. Overall, Alternative 1 has the least potential impact on fish populations and habitats, including threatened species, of any action alternative.	Impact avoidance and minimization measures include, but are not limited to , the following: • Redirecting proposed improvements through developed uplands where practicable; • Reducing project foot-print where practicable; • Spanning waterways with bridges outside of the active floodplain where practicable; and • Utilizing best available science to document, avoid, and then mitigate for potential impacts. Compensatory fish and habitat mitigation measures can be divided into three categories: 1) on-site/in-kind, 2) sub-basin, and 3) watershed level. It is WSDOT policy, at a minimum, to control and treat stormwater runoff that could impact fish and habitat such that downstream flood damage and/or serious water quality problems are not increased as a result of new road projects. This could require on-site/in-kind mitigation. This mitigation type replicates as closely as possible specific lost environmental functions (such as suitable spawning habitat for a specific fish species). On-site/in-kind mitigation is applicable to the I-405 Corridor Program at the project-level, as the specific impacts of each project are assessed. Mitigation can then be incorporated into project design, or mitigation opportunities can be identified in the immediate vicinity. It is not always feasible to provide suitable mitigation near a project site, particularly in a highly developed, mostly urban area such as the I-405 corridor. Some regulatory agencies suggest that advanced watershed-based mitigation may involve efforts such as preservation of higher-quality habitat in locations upstream of the study area. In addition, mitigation

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		could be provided outside the project area to address cumulative impacts associated with changes in transportation capacity on I-405. It must be noted that assigning credit for advanced watershed-based mitigation to project-specific impacts will likely require extensive analysis and negotiation. The State of Washington has developed interagency policy guidance for evaluating aquatic mitigation. In making regulatory decisions, the agencies are instructed to "consider whether the mitigation plan provides equal or better functions and values, compared to existing condition, for the target resources and species." <u>Impact Avoidance Measures</u> A number of best management practices (BMPs) will be employed during construction of each specific project to reduce the potential for adverse stream impacts during construction of various projects. The following bullets describe the types of mitigation measures that will be implemented for appropriate projects; however, use of alternate, equally effective BMPs or negotiated mitigation may be developed in the future. • Construction disturbances will be limited to the smallest area practical. When feasible, clearing activities will be staged such that construction areas are cleared no earlier than one week ahead of the start of construction. • Seasonal in-stream work "windows" as established by the WDFW, USFWS, and NMFS, will be observed. Major clearing and grading will be limited to the dry season: usually May 1 through September 1, where reasonable and feasible to avoid construction impacts. If other construction activities are to take place during the wet season, an erosion and sediment control plan will be prepared detailing measures required to provide adequate control and treatment of construction site runoff during wet season conditions. These measures could include shortened intervals for ground-disturbing activities; ceasing of construction activities and rapid stabilization measures during and following storms greater than one-half inch in 24 hours; and additional treatment to remove suspended solids and turbidity from collected project site runoff prior to discharge

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		(CH2M HILL, 2001b). • Exposed bare soil will be covered as soon as possible after grading to minimize erosion potential using typical techniques such as hydroseeding, mulching, or matting. • Erosion on slopes will be minimized by using techniques such as roughening, terracing, or contouring slopes before seeding. • Sediment transport off-site or into drainage features/facilities will be avoided, using techniques such as filter fabric fence installed downstream of all exposed slopes, around existing drainage inlets, and along river, stream, and drainage channels in the vicinity of work areas. • Toxic pollution will be controlled, by requiring that all equipment be maintained and refueled where potential spills and stormwater runoff can be contained. A toxic spill response plan will be designed to contain any spills that occur. Water quality monitoring programs may be required by jurisdictional agencies to sample above and below construction areas, before, during and after project construction. Specific construction techniques will be designed at the project phase to reduce the potential of adverse stream impacts. For example, bridge construction methods that avoid temporary work bridges will be considered, and any temporary stream structures will avoid the use of chemically treated wood materials such as creosote or chemonite. Creosote treated woods will not be used for any in-stream structures. **Compensatory Measures** On-site/in-kind mitigation is most effective in avoiding construction impacts, but direct displacement of habitat may require compensation. For example, riparian areas cleared for construction staging or access will be revegetated with native plant species. If in-stream habitat is unavoidably displaced by new structures, on-site opportunities for creating additional habitat will be investigated. Habitat enhancement will compensate for the habitat functions that were lost, specific to fish species and life-stage. **Operational Impact Mitigation**

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Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
		Impact Avoidance Measures The I-405 Corridor Program alternatives presently identify projects only at a conceptual level; no detailed project design has been completed. The most effective mitigation for operational impacts will be to design individual projects for impact avoidance or minimization. Examples of the types of mitigation that will be implemented include: • Designing stream crossings to be passable for migrating fish. • Stormwater runoff quantity: Detaining runoff from new impervious surfaces in accordance with Washington State Department of Ecology's (Ecology) current stormwater drainage manual, or functionally equivalent stormwater guidance, and infiltrate to groundwater where feasible. • Stormwater runoff quality: Treating collected stormwater runoff from new impervious surface in accordance with the Ecology drainage manual or functionally equivalent stormwater guidance using sedimentation ponds, filter systems, wetponds, vegetated swales, and filtering devices. **Compensatory Measures** One compensatory measure for operational impacts will be retrofitting of existing impervious surface for stormwater runoff quantity and quality. WSDOT will consider non-engineering solutions, such as removal of existing impervious surfaces and conversion into naturally vegetated habitat, where practicable and permittable. Sub-Basin Level Mitigation A number of mitigation projects have been previously identified by local jurisdictions to meet existing habitat enhancement/protection needs throughout sub-basins in the I-405 Corridor Program study area. As mitigation for the I-405 Corridor Program improvements, WSDOT will consider participating in some of these projects to gain mitigation credit for project-level impacts while contributing toward overall restoration of sub-basins and watersheds. Mitigation opportunities identified by each local jurisdiction are summarized in the EIS section.

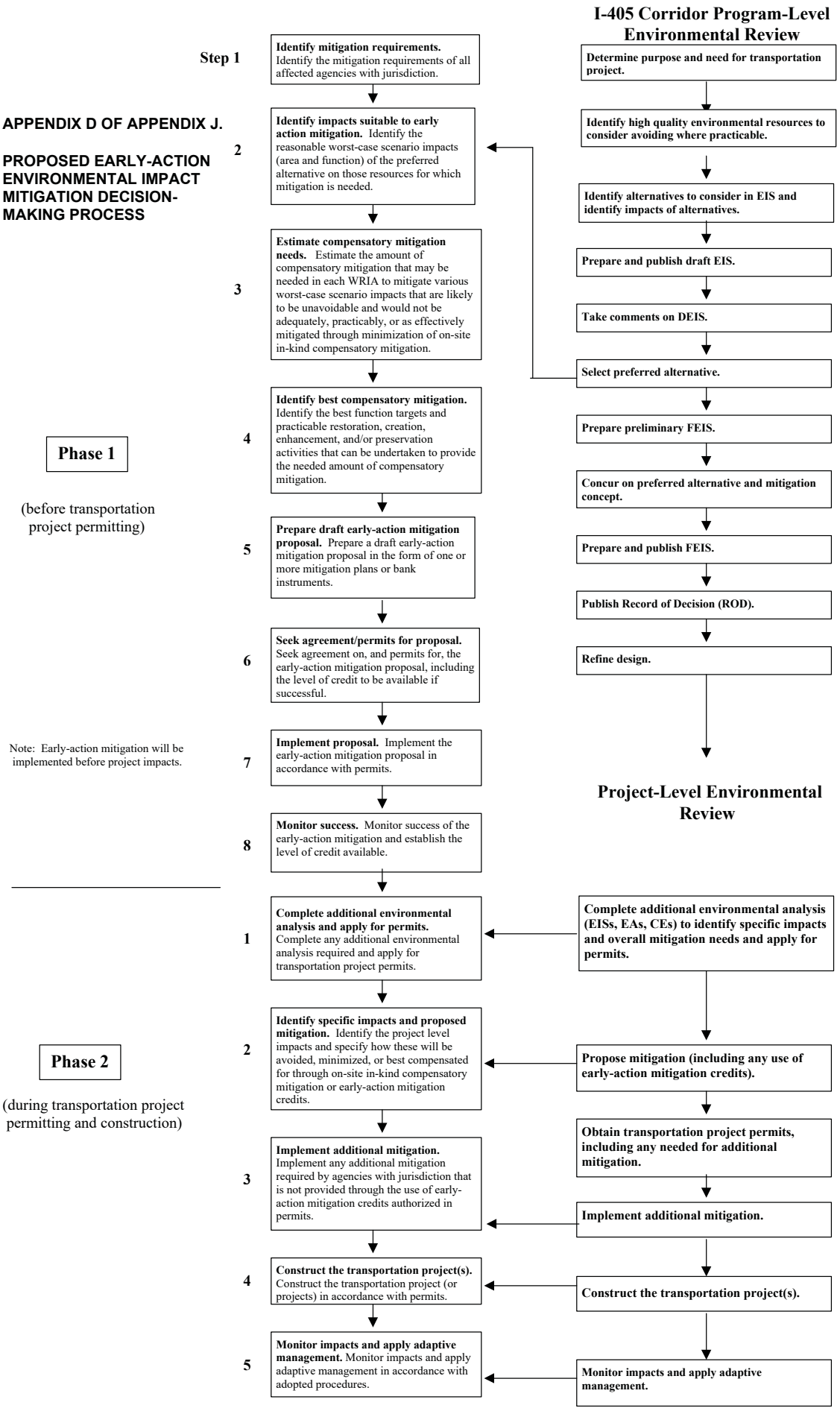
Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
Alternative 2	Alternative 2 would result in 421 riparian encroachments, the highest of any alternative in 13 of the 19 basins and would have the highest potential for construction impacts of all the action alternatives. This alternative would create 820 acres of new impervious surface. The potential for operational impacts to degrade groundwater quality or to decrease groundwater supply is low and not substantial, with the exception of a traffic accident spilling hazardous pollutants, in which impacts to groundwater quality could be substantial.	Same as Alternative 1.
Alternative 3	Alternative 3 would result in 325 riparian encroachments and would create 773 acres of new impervious surface. The potential for operational impacts to degrade groundwater quality or to decrease groundwater supply is low and not substantial, with the exception of a traffic accident spilling hazardous pollutants, in which impacts to groundwater quality could be substantial.	Same as Alternative 1.
Alternative 4	Alternative 4 would result in 354 new riparian encroachments, the highest of any alternative for 2 of 19 basins. Alternative 4 would result in 1,061 acres of new impervious surface The potential for operational impacts to degrade groundwater quality or to decrease groundwater supply is low and not substantial, with the exception of a traffic accident spilling hazardous pollutants, in which impacts to groundwater quality could be substantial. It would create substantially more new impervious cover than other action alternatives. In addition, Alternative 4 includes the only proposed activity outside the UGA, in the Sammamish River basin on Highway 202 north of 128th Street in Redmond.	Same as Alternative 1.
Preferred Alternative	The Preferred Alternative would result in 330 new riparian encroachments. The Preferred Alternative would result in 974 acres of new impervious surface. It would create more new impervious cover than Alternative 3, but not as much as Alternative 4. The potential for operational impacts to degrade groundwater quality or to decrease groundwater supply is low and not substantial, with the exception of a traffic accident spilling hazardous pollutants, in which impacts to groundwater quality could be substantial.	Same as Alternative 1.
Section 3.10 Floodplains No Action Alternative	Within the project study area there are 18 floodplains that are either crossed or are adjacent to I-405, potential high-capacity corridors, and arterials. The evaluation of the action alternatives assumes that all of the No Action Alternative projects would be built. Under the No Action Alternative there are 6 projects that would potentially impact 5 floodplains. This includes 5 culvert or bridge crossings of the floodway. The potential length of floodplain impact is 13,950 feet.	In situations where the floodway area of the floodplain is crossed, the floodway will be spanned or bridged so that flows are not impeded. All roadways will cross major rivers (Duwamish River, Green River, Cedar River, and Sammamish River) on bridges with few or no piers in the floodway.

Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
Alternative 1	Under Alternative 1, 23 projects would either enter or cross 14 different 100-year floodplains. 22 floodway crossings by culverts or bridges would be lengthened or replaced, with a potential for 31,650 linear feet of floodplain impacts. The potential impact on floodplains would be relatively low. No operational impacts are anticipated, since the roadway can be designed to avoid the floodway and structural design requirements would result in a zero increase in flood elevation.	The amount of fill in floodplains will be limited by building walls or steep engineered fill slopes adjacent to the floodplain rather than standard fill slopes where practicable. When crossing a river, a longer bridge span could be used. Other possible mitigation measures include widening existing bridges, increasing existing culvert sizes, or replacing existing culverts with bridges. Mitigation anywhere along the stream system, including purchase of development rights, can reduce flood flows and limit the rise in the floodplain. Design and specifications will be prepared in conjunction with biologists to reduce impacts on the natural stream bed and, when appropriate to the given project, impacts will be mitigated by placing gravel in the culverts, planting riparian trees, and using other natural features such as log weirs, boulders, and other types of woody debris. Construction will be done during low flow periods that are least likely to harm fish and other wildlife in accordance with WDFW requirements. Maintenance of stream crossing structures will be reduced by selecting materials with longevity and low maintenance requirements and by selecting larger sizes of culverts or bridges with more clearance. Maintenance will be accomplished during low flow with the least obtrusion.
Alternative 2	Under Alternative 2, 37 projects would either enter or cross 14 different 100-year floodplains. 41 floodways would be crossed by culverts or bridges that would be lengthened or replaced, with a potential for 48,025 linear feet of floodplain impacts. The potential impact on floodplains would be moderate. During construction, no impacts to the floodplain storage are anticipated. There may be impacts to floodplain ecological functions. No operational impacts are anticipated, since roadways can be designed to avoid the floodway and structural design requirements would result in a zero increase in flood elevation.	Same as Alternative 1.
Alternative 3	Under Alternative 3, 36 projects would either enter or cross 14 different 100-year floodplains. 40 floodways would be crossed by culverts or bridges that would be lengthened or replaced, with a potential for 48,125 linear feet of floodplain impacts. The potential impact on floodplains adjacent to I-405 would be high.	Same as Alternative 1.

Summary of Potential Impacts and Possible Mitigation Measures		
Summary of Findings		
Element	**Environmental Consequences**	**Summary of Mitigation**
	During construction, no impacts to the floodplain storage are anticipated. There may be impacts to floodplain ecological functions. Same construction and operational impacts as Alternative 2.	
Alternative 4	Under Alternative 4, 36 projects would either enter or cross 14 different 100-year floodplains. 41 floodways would be crossed by culverts or bridges that would be lengthened or replaced, with a potential for 39,175 linear feet of floodplain impacts. The potential impact on floodplains adjacent to I-405 would be high, especially Springbrook Creek and North Creek. During construction, no impacts to the floodplain storage are anticipated. There may be impacts to floodplain ecological functions. Same construction and operational impacts as Alternative 2.	Same as Alternative 1.
Preferred Alternative	Under the Preferred Alternative, approximately 43 projects would either enter or cross 14 different 100-year floodplains. Approximately 45 floodways would be crossed by culverts or bridges that would be lengthened or replaced, with a potential for slightly more than 48,125 linear feet of floodplain impacts. The potential impact on floodplains adjacent to I-405 would be high. During construction, no impacts to the floodplain storage are anticipated. There may be impacts to floodplain ecological functions. Same construction and operational impacts as Alternative 2.	Same as Alternative 1.

APPENDIX D OF APPENDIX J.

PROPOSED EARLY-ACTION ENVIRONMENTAL IMPACT MITIGATION DECISION-MAKING PROCESS



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APPENDIX E OF APPENDIX J. MITIGATION REQUIREMENTS OF AGENCIES WITH JURISDICTION IN THE I-405 CORRIDOR PROGRAM STUDY AREA THAT PERTAIN TO WATER RESOURCES, WETLANDS, FLOODPLAINS, PROTECTED AQUATIC SPECIES AND HABITAT, AND PROTECTED UPLAND SPECIES AND HABITAT*

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
Federal:					
U.S. Army Corps of Engineers (ACOE)	Trigger(s): Discharge of dredged or fill material within the ordinary high water mark of waters of the U.S.; Structures or work in or affecting navigable waters of the U.S. Authorities: Section 404, federal Clean Water Act; Section 10, River and Harbor Act; National Environmental Policy Act (NEPA); federal Clean Water Act; Coastal Zone Management Act (CZMA); Fish and Wildlife Act of 1956; Migratory Marine Game-Fish Act; Fish and Wildlife Coordination Act; Endangered Species Act (ESA); Marine Mammal Protection Act; Wild and Scenic Rivers Act. Regulation(s): Guidelines for Specification of Disposal Sites for Dredged or Fill Material [40 CFR 230, i.e. 404(b)(1) Guidelines]. Requirement(s): For Section 404 permit applications, mitigation is required to ensure compliance with 40 CFR 230. Discharge or activity must meet state water quality standards. Policy/Guidance: Several, including a Regulatory Guidance Letter regarding Compensatory Mitigation, 31 October 2001. (See data sheet). Compensation ratio(s): Case-by-case. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Allowed in conjunction with, and to augment the functions of, an established, restored, rehabilitated, or enhanced aquatic resource. Banking: Not specified.	Trigger(s): Discharge of dredged or fill material within the ordinary high water mark of waters of the U.S.; Structures or work in or affecting navigable waters of the U.S. Authorities: Section 404, federal Clean Water Act; Section 10, River and Harbor Act; National Environmental Policy Act (NEPA); federal Clean Water Act; Coastal Zone Management Act (CZMA); Fish and Wildlife Act of 1956; Migratory Marine Game-Fish Act; Fish and Wildlife Coordination Act; Endangered Species Act (ESA); Marine Mammal Protection Act; Wild and Scenic Rivers Act; Executive Order 11990. Regulation(s): Guidelines for Specification of Disposal Sites for Dredged or Fill Material [40 CFR 230, i.e. 404(b)(1) Guidelines]. Requirement(s): For Section 404 permit applications, mitigation is required to ensure compliance with 40 CFR 230. Discharge or activity must meet state water quality standards. Policy/Guidance: Several, including a Regulatory Guidance Letter regarding Compensatory Mitigation, 31 October 2001. (See data sheet). Compensation ratio(s): Case-by- case (1:1 minimum, generally 2:1). Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Allowed in conjunction with, and to augment the functions of, an established, restored, rehabilitated, or enhanced aquatic resource. Banking: Allowed.	Trigger(s): Carrying out responsibilities for various specified activities within the ordinary high water mark of waters of the U.S. in a floodplain. Authorities: Executive Order 11988 of May 24, 1977. Regulation(s): Requirement(s): Any agency carrying out any of the specified activities must avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplain development wherever there is a practicable alternative. Policy/Guidance: Compensation ratio(s): Case-by-case. Off-site: Allowed (first priority is on-site mitigation). Out of-kind: Not prohibited. Preservation: Allowed in conjunction with, and to augment the functions of, an established, restored, rehabilitated, or enhanced aquatic resource. Banking: Not prohibited.	Trigger(s): Discharge of dredged or fill material within the ordinary high water mark of waters of the U.S.; Structures or work in or affecting navigable waters of the U.S. Authorities: Section 404, federal Clean Water Act; Section 10, River and Harbor Act; National Environmental Policy Act (NEPA); federal Clean Water Act; Coastal Zone Management Act (CZMA); Fish and Wildlife Act of 1956; Migratory Marine Game-Fish Act; Fish and Wildlife Coordination Act; Endangered Species Act (ESA); Marine Mammal Protection Act; Wild and Scenic Rivers Act. Regulation(s): Guidelines for Specification of Disposal Sites for Dredged or Fill Material [40 CFR 230, i.e. 404(b)(1) Guidelines]. Requirement(s): For Section 404 permit applications, mitigation is required to ensure compliance with 40 CFR 230. Policy/Guidance: Several, including a Regulatory Guidance Letter regarding Compensatory Mitigation, 31 October 2001. (See data sheet). Compensation ratio(s): Case-by-case. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Allowed in conjunction with, and to augment the functions of, an established, restored, rehabilitated, or enhanced aquatic resource. Banking: Allowed.	
U.S. Environmental Protection Agency (EPA)	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S. in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants at federal facilities or on tribal lands. Authorities: Sections 401 and 402, federal Clean Water Act; Safe Drinking Water Act; NEPA. Regulation(s): Federal Water Quality Standards, 33 CFR 131. Requirement(s): The discharge must comply with	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S. in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants at federal facilities or on tribal lands. Authorities: Sections 401 and 402, federal Clean Water Act; NEPA. Regulation(s): Federal Water Quality Standards, 33 CFR 131. Requirement(s): The discharge must comply with	Trigger(s): Carrying out responsibilities for various specified activities in a floodplain. Authority: Executive Order 11988 of May 24, 1977. Regulation(s): Requirement(s): Any agency carrying out any of the specified activities must avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplain development wherever there is a practicable alternative.	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S. in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants at federal facilities or on tribal lands. Authority: Sections 401 and 402, federal Clean Water Act; Safe Drinking Water Act; NEPA. Regulation(s): Federal Water Quality Standards, 33 CFR 131. Requirement(s): The discharge must comply with	

* The information provided in this table is still being compiled. However, where cells are empty, it is assumed that there are no impacts of the type specified or there is no statutory authority for the agency to require mitigation for such impacts. Also, for more detailed information on the requirements of each agency for mitigating the specified types of impact, please see the individual data sheets held by WSDOT's Environmental Affairs Office.

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
	the applicable effluent standards and water quality standards. Policy/Guidance: Several, including an EPA Region 10, 404 Mitigation Policy and a MOA with the Department of the Army concerning the determination of mitigation under the 404(b)(1) Guidelines (see data sheet). Compensation ratio(s): Case-by-case. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Banking: Not specified.	the applicable effluent standards and water quality standards. Policy/Guidance: Several, including an EPA Region 10, 404 Mitigation Policy, an MOA with the Department of the Army concerning the determination of mitigation under the 404(b)(1) Guidelines, and a wetland compensation banking agreement with WSDOT and others (see data sheet). Compensation ratio(s): Case-by- case (1:1 minimum, generally 2:1). Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Banking: Allowed.	Policy/Guidance: Compensation ratio(s): Off-site: Out of-kind: Preservation: Banking:	the applicable effluent standards and water quality standards. Policy/Guidance: Several, including an EPA Region 10, 404 Mitigation Policy and a MOA with the Department of the Army concerning the determination of mitigation under the 404(b)(1) Guidelines (See data sheet). Compensation ratio(s): Case-by- case. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Banking: Allowed.	
U.S. Fish and Wildlife Service (USFWS)		Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Fish and Wildlife Coordination Act (FWCA); Migratory Bird Treaty Act (MBTA). Regulation(s): Requirement(s): No requirements for mitigation, but under the FWCA, any department or agency proposing or authorizing the impounding, diverting, or controlling of the waters of any stream or water body must consult with the USFWS about the wildlife resources (including birds, fishes, mammals, and all other classes of wild animals and all types of vegetation upon which wildlife is dependent), and the USFWS may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Policy/Guidance: U.S. Fish and Wildlife Service Mitigation Policy. Off-site: Allowed on a case-by-case basis if net benefit. Out-of-kind: Allowed on a case-by-case basis if net benefit. Preservation: Banking: Not specified.		Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Fish and Wildlife Coordination Act (FWCA); Migratory Bird Treaty Act (MBTA). Regulation(s): Requirement(s): No requirements for mitigation, but under the FWCA, any department or agency proposing or authorizing the impounding, diverting, or controlling of the waters of any stream or waterbody must consult with the USFWS about the wildlife resources (including birds, fishes, mammals, and all other classes of wild animals and all types of vegetation upon which wildlife is dependent), and the USFWS may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Also, under the Endangered Species Act, federal agencies are prohibited from taking any action that is likely (in the opinion of the USFWS) to jeopardize the continued existence of any listed (endangered and threatened) terrestrial or freshwater species, so project proponents are encouraged to propose "conservation measures", and everyone is prohibited from the "take" of such species without a special permit crafted to minimize impacts. Policy/Guidance: U.S. Fish and Wildlife Service Mitigation Policy. Off-site: Allowed on a case-by-case basis if net benefit. Out-of-kind: Allowed on a case-by-case basis if	Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Fish and Wildlife Coordination Act (FWCA); Migratory Bird Treaty Act (MBTA). Regulation(s): Requirement(s): No requirements for mitigation, but under the FWCA, any department or agency proposing or authorizing the impounding, diverting, or controlling of the waters of any stream or waterbody must consult with the USFWS about the wildlife resources (including birds, fishes, mammals, and all other classes of wild animals and all types of vegetation upon which wildlife is dependent), and the USFWS may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Also, under the Endangered Species Act, federal agencies are prohibited from taking any action that is likely (in the opinion of the USFWS) to jeopardize the continued existence of any listed (endangered and threatened) terrestrial or freshwater species, so project proponents are encouraged to propose "conservation measures", and everyone is prohibited from the "take" of such species without a special permit crafted to minimize impacts. Policy/Guidance: U.S. Fish and Wildlife Service Mitigation Policy. Off-site: Allowed on a case-by-case basis if net benefit. Out-of-kind: Allowed on a case-by-case basis if

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
				net benefit. Preservation: Banking: Not specified.	net benefit. Preservation: Banking: Not specified.
U.S. National Marine Fisheries Service (NMFS)	(See information for NMFS under "Impacts on: Protected Aquatic Species and Habitat")	Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Fish and Wildlife Coordination Act (FWCA). Regulation(s): Requirement(s): No requirements for mitigation, but under the FWCA, any department or agency proposing or authorizing the impounding, diverting, or controlling of the waters of any stream or water body must consult with NMFS about the wildlife resources (including birds, fishes, mammals, and all other classes of wild animals and all types of vegetation upon which wildlife is dependent), and NMFS may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed on a case-by-case basis if net benefit. Out-of-kind: Allowed on a case-by-case basis if net benefit. Preservation: Banking: Not specified.		Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Fish and Wildlife Coordination Act (FWCA); Magnuson-Stevens Fisheries Conservation and Management Act. Regulation(s): Requirement(s): No requirements for mitigation, but under the FWCA, any department or agency proposing or authorizing the impounding, diverting, or controlling of the waters of any stream or water body must consult with NMFS about the wildlife resources (including birds, fishes, mammals, and all other classes of wild animals and all types of vegetation upon which wildlife is dependent), and NMFS may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Also, under the Endangered Species Act, federal agencies are prohibited from taking any action that is likely (in the opinion of NMFS) to jeopardize the continued existence of any listed (endangered and threatened) marine species, so project proponents are encouraged to propose "conservation measures", and everyone is prohibited from the "take" of such species with-out a special permit crafted to minimize impacts. Also, under the Magnuson-Stevens Act, NMFS can recommend conservation measures for any federal agency actions that may adversely affect essential fish habitat, and the action agency must respond with a description of proposed mitigation (and adequate justification if the agency is not following NMFS recommendation). Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed on a case-by-case basis if net benefit. Out-of-kind: Allowed on a case-by-case basis if net benefit. Preservation: Banking: Not specified.	

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
State:					
Washington State Department of Ecology (Ecology)	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S., except in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants, except at federal facilities or on tribal lands. Authorities: Water Pollution Control Act, Chapter 90.48 RCW; Aquatic Resources Mitigation Act, Chapter 90.74 RCW; Water Resources Act, Chapter 90.54 RCW; Shoreline Management Act, Chapter 90.58 RCW; Salmon Recovery Act, Chapter 77. 85 RCW; State Environmental Policy Act, Chapter 43.21C RCW; Sections 401 and 402, federal Clean Water Act; Coastal Zone Management Act (CZMA). Regulation(s): Water Quality Modification, Chapter 173-201A WAC; Hydraulic Code Rules, Chapter 220-110 WAC; Shoreline Management Permit and Enforcement Procedures, Chapter 173-27 WAC; Sediment Management Standards, Chapter 173-204 WAC; National Pollutant Discharge Elimination System Permit Program, Chapter 173-220 WAC. Requirement(s): Water quality and quantity impacts must be mitigated to the maxi-mum extent practicable by using all known, available, and reasonable methods of prevention, control, and treatment (AKART). Policy/Guidance: Several, including Ecology Stormwater Manual and an Alternative Mitigation Policy Guidance Agreement with WSDOT and WDFW (see data sheet). Compensation ratio(s): Not specified. Off-site: Allowed for certain pollutants if within same stream basin. Out-of-kind: Case-by-case (if net benefit and no other alternative). Preservation: Banking: Not specified.	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S., except in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants, except at federal facilities or on tribal lands. Authorities: Water Pollution Control Act, Chapter 90.48 RCW; Aquatic Resources Mitigation Act, Chapter 90.74 RCW; Water Resources Act, Chapter 90.54 RCW; Shoreline Management Act, Chapter 90.58 RCW; Salmon Recovery Act, Chapter 77. 85 RCW; State Environmental Policy Act, Chapter 43.21C RCW; Sections 401 and 402, federal Clean Water Act; Coastal Zone Management Act (CZMA). Regulation(s): Water Quality Modification, Chapter 173-201A WAC; Hydraulic Code Rules, Chapter 220-110 WAC; Shoreline Management Permit and Enforcement Procedures, Chapter 173-27 WAC; Sediment Management Standards, Chapter 173-204 WAC; National Pollutant Discharge Elimination System Permit Program, Chapter 173-220 WAC; Protection of Wet-lands, Governor Executive Order EO 89-10; Governor Executive Order EO 90-04. Requirement(s): Water quality and quantity impacts must be mitigated to the maxi-mum extent practicable by using all known, available, and reasonable methods of prevention, control, and treatment (AKART). Policy/Guidance: Several, including an Alternative Mitigation Policy Guidance Agreement with WSDOT and WDFW (see data sheet). Compensation ratio(s): (Guidance) Category I – 6:1 Category II/III(PFO) – 3:1 Category II/III(PSS) – 2:1 Category II/III(PEM) – 1.5:1 Category IV – 1.25:1 Off-site: Allowed if net benefit and replacement of lost functions. Out-of-kind: Allowed if net benefit and replacement of lost functions. Preservation: Allowed in combination with other forms of compensation at the preservation site, or at a separate location. Banking: Allowed.	Trigger(s): Any structure or works, public or private, to be erected or built or to be reconstructed or modified upon the banks or in or over the channel or over and across the floodway of any stream or body of water in the state; carrying out responsibilities for various specified activities in a floodplain. Authorities: Floodplain Management Act, Chapter 86.16 RCW; National Flood Insurance Program (NFIP); Shoreline Management Act, Chapter 90.58 RCW; Flood Control Assistance Account, Chapter 86.26 RCW; Executive Order 11988 of May 24, 1977. Regulation(s): Flood Plain Management, Chapter 173-158 WAC. Requirement(s): Zero (0) rise in any designated floodway. Ecology can enforce this requirement of the NFIP in situations where a local agency has not chosen to participate in the NFIP, or if they are participating but fail to enforce it. Policy/Guidance: Alternative Mitigation Policy Guidance Agreement with WSDOT and WDFW; Comprehensive Planning for Flood Hazard Areas, Ecology, 1991. Compensation ratio(s): Off-site: Out-of-kind: Preservation: Allowed in combination with other forms of compensation at the preservation site, or at a separate location. Banking: Allowed.	Trigger(s): Any federal license or permit to conduct an activity that may result in a discharge of a pollutant into waters of the U.S., except in national parks or on tribal lands; any discharge of a pollutant or combination of pollutants, except at federal facilities or on tribal lands. Authorities: Water Pollution Control Act, Chapter 90.48 RCW; Aquatic Resources Mitigation Act, Chapter 90.74 RCW; Water Resources Act, Chapter 90.54 RCW; Shoreline Management Act, Chapter 90.58 RCW; Salmon Recovery Act, Chapter 77. 85 RCW; State Environmental Policy Act, Chapter 43.21C RCW; Sections 401 and 402, federal Clean Water Act; Coastal Zone Management Act (CZMA). Regulation(s): Water Quality Modification, Chapter 173-201A WAC; Hydraulic Code Rules, Chapter 220-110 WAC; Shoreline Management Permit and Enforcement Procedures, Chapter 173-27 WAC; Sediment Management Standards, Chapter 173-204 WAC; National Pollutant Discharge Elimination System Permit Program, Chapter 173-220 WAC. Requirement(s): Water quality and quantity impacts must be mitigated to the maxi-mum extent practicable by using all known, available, and reasonable methods of prevention, control, and treatment (AKART). Policy/Guidance: Several, including Ecology Stormwater Manual and an Alternative Mitigation Policy Guidance Agreement with WSDOT and WDFW (see data sheet). Compensation ratio(s): Not specified. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Allowed in combination with other forms of compensation at the preservation site, or at a separate location. Banking: Allowed.	
Washington State Department of Fish and Wildlife (WDFW)		Trigger(s): Any hydraulic project or work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state		Trigger(s): Any hydraulic project or work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state	Trigger(s): Federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
	(See information for WDFW under "Impacts on: Protected Aquatic Species and Habitat")	[which requires a hydraulic project approval (HPA)]; federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Construction Projects in State Waters, Chapter 77.55 RCW; Salmon Recovery Act, Chapter 77.85 RCW; Aquatic Resources Mitigation Act, Chapter 90.74 RCW; Fish and Wildlife Coordination Act (FWCA); Growth Management Act, Chapter 36.70A RCW; State Environmental Policy Act, Chapter 43.21C RCW. Regulation(s): Hydraulic Code Rules, Chapter 220-110 WAC; WDFW SEPA Rules, Chapter 232-19 WAC. Requirement(s): A mitigation agreement may be required prior to approval of an HPA. Replacement mitigation may be required to be established and functional prior to project construction. Projects that will result in direct or indirect harm to fish life must be denied unless adequate mitigation can be assured. Various types of projects must incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. Also, under the FWCA, the involved agency must consult with WDFW about the wildlife resources (including all classes of wild animals and all types of vegetation upon which wildlife is dependent), and WDFW may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Policy/Guidance: Several, including WDFW Mitigation Policy M5002 and an Alternative Mitigation Policy Guidance Agreement with WSDOT and Ecology (see data sheet). Compensation ratio(s): 2:1 minimum for HPA projects. Off-site: Allowed if net benefit. Out-of-kind: Allowed if equal or better biological functions and values are provided. Preservation: Allowed in combination with other forms of compensation at the preservation site, or at a separate location. Banking: Allowed.		[which requires a hydraulic project approval (HPA)]; federal undertakings and non-federal actions needing a federal permit or license to control or modify a body of water, including wetlands. Authorities: Construction Projects in State Waters, Chapter 77.55 RCW; Salmon Recovery Act, Chapter 77.85 RCW; Aquatic Resources Mitigation Act, Chapter 90.74 RCW; Fish and Wildlife Coordination Act (FWCA); Growth Management Act, Chapter 36.70A RCW; State Environmental Policy Act, Chapter 43.21C RCW. Regulation(s): Hydraulic Code Rules, Chapter 220-110 WAC; WDFW SEPA Rules, Chapter 232-19 WAC. Requirement(s): A mitigation agreement may be required prior to approval of an HPA. Replacement mitigation may be required to be established and functional prior to project construction. Projects that will result in direct or indirect harm to fish life must be denied unless adequate mitigation can be assured. Various types of projects must incorporate mitigation measures as necessary to achieve no-net-loss of productive capacity of fish and shellfish habitat. Also, under the FWCA, the involved agency must consult with WDFW about the wildlife resources (including all classes of wild animals and all types of vegetation upon which wildlife is dependent), and WDFW may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Policy/Guidance: Several, including WDFW Mitigation Policy M5002 and an Alternative Mitigation Policy Guidance Agreement with WSDOT and Ecology (see data sheet). Compensation ratio(s): Greater than 1:1 to compensate for temporal loss, uncertainty of performance, and differences in functions and values. Off-site: Allowed if net benefit. Out-of-kind: Allowed where equal or better biological functions and values are provided, but only for priority habitats and species if priority habitat and species at greater risk are substituted for the impacted priority habitats and species. Preservation: Allowed in combination with other forms of compensation at the preservation site, or	wetlands; impacts to priority habitats and species. Authorities: Fish and Wildlife Coordination Act (FWCA); Fish and Wildlife Laws, Title 77 RCW; Growth Management Act, Chapter 36.70A RCW; State Environmental Policy Act, Chapter 43.21C RCW. Regulation(s): Bald Eagle Protection Rules, WAC 232-12-292. Requirement(s): No requirements for mitigation, but under the FWCA, the involved agency must consult with WDFW about the wildlife resources (including all classes of wild animals and all types of vegetation upon which wildlife is dependent), and WDFW may provide comments including recommended means and measures that should be adopted to prevent the loss of or damage to the wildlife resources, which must be included in any report to the entity having authority to authorize the undertaking or action and be given full consideration by that authority. Policy/Guidance: Several, including WDFW Mitigation Policy M5002 and an Alternative Mitigation Policy Guidance Agreement with WSDOT and Ecology (see data sheet). Compensation ratio(s): Greater than 1:1 to compensate for temporal loss, uncertainty of performance, and differences in functions and values. Off-site: Allowed if net benefit. Out-of-kind: Allowed where equal or better biological functions and values are provided, but only for priority habitats and species if priority habitat and species at greater risk are substituted for the impacted priority habitats and species. Preservation: Allowed in combination with other forms of compensation at the preservation site, or at a separate location. Banking: Allowed.

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
				at a separate location. Banking: Allowed.	
Local:					
King County	Trigger(s): Any "development activity" as defined by King County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Title 9, KCC. Requirement(s): Several (see data sheet). Policy/Guidance: King County Stormwater Manual. Compensation ratio(s): Not specified. Off-site: For stormwater, must be within the same stream basin; for stream mitigation, decided on a case-by-case basis. Out-of-kind: For stormwater, not allowed; for stream mitigation, decided on a case-by-case basis. Preservation: Banking: Not specified.	Trigger(s): Any "development activity" as defined by King County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Chapter 21A.24, KCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Class I/II = 2:1 Class III = 1:1 Off-site: Allowed if no other alternatives (within sub-basin) Out-of-kind: Not allowed Preservation: Banking: Allowed.	Trigger(s): Any "development activity" as defined by King County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA); Flood Plain Management Act. Ordinance(s): Chapter 21A.24, KCC. Requirement(s): Must compensate for any loss of flood storage volume in the floodplain. Policy/Guidance: Compensation ratio(s): 1:1, no net loss of storage capacity. Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not allowed. Preservation: Banking: Not specified.	Trigger(s): Any "development activity" as defined by King County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Chapter 21A.24, KCC. Requirement(s): Several (see data sheet). Policy/Guidance: King County Stormwater Manual Compensation ratio(s): No net loss of functions. Off-site: Allowed if no other alternatives (Net Benefit). Out-of-kind: Not allowed. Preservation: Banking: Allowed.	No requirements for mitigation, except case-by-case based on the substantive effect authority of SEPA and comprehensive plan policies.
Snohomish County	Trigger(s): Any "development activity" as defined by Snohomish County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Chapter 24.10 SCC. Requirement(s): Mitigation required as specified in any permit, approved plan, or review conducted. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if net benefit. If Chinook sub-population involved, then must be within same stream basin. Out-of-kind: Allowed if net benefit. Banking: Not specified.	Trigger(s): Any "development activity" as defined by Snohomish County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Chapter 32.10 SCC. Requirement(s): Mitigation required for loss of area or functions and values of wetlands, streams, and buffers. Policy/Guidance: Compensation ratio(s): 1:1 minimum, equal or greater function. Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not specified. Banking: Allowed.	Trigger(s): Any "development activity" as defined by Snohomish County Code requiring a flood hazard permit. Authorities: Growth Management Act; State Environmental Policy Act (SEPA); Flood Plain Management Act. Ordinance(s): Title 27, SCC. Requirement(s): Permitted uses must not cause a cumulative increase in the base flood elevation of more than one foot. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives. Out-of-kind: Not allowed. Banking: Not specified.	Trigger(s): Any "development activity" as defined by Snohomish County Code requiring development approval. Authorities: Growth Management Act; State Environmental Policy Act (SEPA). Ordinance(s): Chapter 32.10 SCC. Requirement(s): Two options (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1 minimum, no loss of function. Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not allowed. Banking: Not specified.	No requirements for mitigation, except case-by-case based on the substantive effect authority of SEPA and comprehensive plan policies.
City of Bellevue	Trigger(s): Modifying drainage patterns, constructing or relocating facilities for the treatment, detention, or conveyance of drainage. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Part 24.06 BCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if approved by the utility (regional runoff-control or runoff treatment facilities). Out-of-kind: Case-by-case. Preservation: Banking:	Trigger(s): Development within a riparian corridor or riparian corridor setback. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Part 20.25H BCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Replacement - Type A – 2:1 Type B – 1.5:1 Off-site: Allowed if no other alternatives (within basin). Out-of-kind: Allowed if no other alternatives. Preservation:	Trigger(s): Development within a 100-year flood area. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Part 20.25H BCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1, no increase in water surface elevation of the base flood. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking:	Trigger(s): Alterations in or near sensitive areas. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Part 20.25H BCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): No loss of function. Off-site: Allowed if no other alternatives (within basin). Out-of-kind: Allowed if no other alternatives (net benefit). Preservation: Banking: Not allowed.	Trigger(s): Alterations in or near sensitive areas. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Part 20.25H BCC. Requirement(s): Mitigation required for habitat and protected species. Policy/Guidance: Compensation ratio(s): N/A. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking:

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
		Banking: Not allowed.			
City of Bothell	Trigger(s): Development having the potential to increase or alter surface and stormwater drainage. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 18.04 BMC. Requirement(s): Provide drainage plan and obtain permits for on-site stormwater system. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not allowed. Preservation: Banking:	Trigger(s): Alteration to wetlands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.04 BMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Replacement – Category I – 2:1 Category II – 1.5:1 Category III – 1.25:1 Off-site: Allowed if net benefit (within sub-basin). Out-of-kind: Allowed if no other alternatives. Preservation: Banking: Allowed.	Trigger: Work within the 100-year floodplain. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.04 BMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1, no increase in water surface elevation of the base flood. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking:	Trigger(s): Development within designated fish and wildlife conservation areas or sensitive habitat. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.04 BMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed of no other alternatives (net benefit). Preservation: Banking: [waiting to hear from City]	Trigger(s): Development within designated fish and wildlife conservation areas or sensitive habitat. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.04 BMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): N/A. Off-site: Allowed if net benefit. Out-of-kind: Allowed if net benefit. Preservation: Banking:
City of Brier					
City of Clyde Hill					
City of Kenmore					
City of Kent	Trigger(s): Modifying drainage patterns, constructing or relocating facilities for the treatment, detention, or conveyance of storm or surface water drainage. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 7.07 KCC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): No net increase in surface water discharge rates Off-site: Allowed if potential impacts to downstream properties are identified Out-of-kind: Case by case, must approved by the Director of Public Works. Preservation: Banking:	Trigger(s): All activities occurring in a wetland or wetland buffer. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 11.05 KCC. Requirement(s): Restoration, creation, or enhancement required. Policy/Guidance: Compensation ratio(s): Replacement – Category I – 3:1 Category II – 1.5:1 Category III – 1.5:1 Enhancement – The city will allow lower replacement ratios if Category II/III wetlands are enhanced at 3:1. Off-site: Allowed if no other alternatives, net benefit (within watershed). Out-of-kind: Allowed if net benefit and meets regional goals. Preservation: Banking: Allowed.	Trigger(s): Development within a special flood hazard area. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.09 KCC. Requirement(s): Not specified; determined by Department of Public Works. Policy/Guidance: Compensation ratio(s): 1:1, no net loss in flood storage capacity. Off-site: Case-by-case. Out-of-kind: Case-by-case. Preservation: Banking:	***NO DATA AVAILABLE***	No data available
City of Kirkland	Trigger(s): Any proposed project subject to a city development permit or approval if it would add or replace impervious surface. Authorities: Growth Management Act; State	Trigger(s): Any development activity requiring a development approval and impacting wetlands. Authorities: Growth Management Act; State Environmental Policy Act.	Trigger(s): Any development activity requiring a development approval and impacting floodplains. Authorities: Growth Management Act; State Environmental Policy Act.	Trigger(s): Any development activity requiring a development approval and impacting fish and aquatic habitat. Authorities: Growth Management Act; State	

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
	Environmental Policy Act. Ordinance(s): Chapter 15.52 KMC. Requirement(s): Compliance with the Ecology Stormwater Manual and its subsequent revisions or functionally equivalent stormwater guidance. Policy/Guidance: Ecology Stormwater Manual or functionally equivalent stormwater guidance. Compensation ratio(s): Not specified. Off-site: Not specified. Out-of-kind: Not specified. Preservation: Banking: Not specified.	Ordinance(s): Chapter 90 KMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Not specified. Out-of-kind: Not specified. Preservation: Banking: Not specified.	Ordinance(s): Chapter 90 KMC. Requirement(s): Minimize flood hazards as determined through PUD or variance process. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Not specified. Out-of-kind: Not specified. Preservation: Banking: Not specified.	Environmental Policy Act. Ordinance(s): Chapter 90 KMC. Requirement(s): Mitigation as determined through PUD or variance process. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Not specified. Out-of-kind: Not specified. Preservation: Banking: Not specified.	
City of Medina					
City of Mercer Island	Trigger(s): Development affecting surface and storm water runoff. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapters 15.09 and 19.07 MICC. Requirement(s): Several (see data sheet). Policy/Guidance: Ecology Stormwater Manual or functionally equivalent stormwater guidance. Compensation ratio(s): Not specified. Off-site: Allowed if no net increase to erosion. Out-of-kind: Allowed if no other alternatives (pay a fee). Preservation: Banking:	Trigger(s): Alteration and development adjacent to wetlands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 19.07.040 MICC. Requirement(s): Wetlands of less than one acre, unless specifically exempted, may be altered if the wetland will be restored, enhanced, or replaced with a wetland area of equivalent or greater size, biologic functions, and value. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if net benefit and no other alternatives (same sub-basin). Out-of-kind: Allowed if no other alternatives (financial contribution). Preservation: Banking: Allowed.	Trigger(s): Alterations in or near critical areas. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 19.07 MICC. Requirement(s): Use best available construction, design, and development techniques which result in the least adverse impact on the water course corridor. Policy/Guidance: Compensation ratio(s): 1:1, no reduction in flood storage capacity. Off-site: Allowed if net benefit. Out-of-kind: Allowed if no other alternatives (net benefit). Preservation: Banking:	Trigger(s): Development adjacent to a watercourse area. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 19.07 MICC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): No net loss of function. Off-site: Allowed if no alternatives and net benefit (same sub-basin). Out-of-kind: Allowed if no alternatives. Preservation: Banking: Allowed.	Trigger(s): Alterations in or near critical lands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 19.07 MICC. Requirement(s): Priority habitat and species study recommending appropriate protections, and any other mitigation measures considered appropriate. Policy/Guidance: Compensation ratio(s): N/A. Off-site: Allowed if no other alternatives (same sub-basin). Out-of-kind: Allowed if no other alternatives (net benefit). Preservation: Banking:
City of Newcastle	Trigger(s): Any proposed project subject to a city development permit or approval that would add or replace 5,000 square feet or more of impervious surface. Authorities: Growth Management Act; SEPA. Ordinance(s): Chapters 13.10 NMC. Requirement(s): Compliance with King County Stormwater manual with some modification (see data sheet). Policy/Guidance: King County Stormwater Manual. Compensation ratio(s): Not specified. Off-site: Allowed if no net increase to erosion. Out-of-kind: Allowed if no other alternatives (pay a fee). Preservation: Banking:	Trigger(s): Any proposed project subject to a city development permit or approval and impacting wetlands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 18.24 NMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Replacement – Category I – 6:1 Category II/III(PFO) – 3:1 Category II/III(PSS) – 2:1 Category II/III(PEM) – 2:1 Category IV – 1.25:1 Enhancement – Category I – 12:1 Category II/III(PFO) – 6:1 Category II/III(PSS) – 4:1 Category II/III(PEM) – 4:1 Category IV – 2.5:1	Trigger(s): Any proposed project subject to a city development permit or approval and impacting frequently flooded areas (floodplains). Authorities: Growth Management Act; State Environmental Policy Act. Ordinance: Chapter 18.24 NMC. Requirement(s): Prevent loss of the effective base flood storage volume or compensate for the loss. Policy/Guidance: Compensation ratio(s): No reduction in flood storage capacity. Off-site: Allowed if no other alternatives. Out-of-kind: Not allowed. Preservation: Banking:	Trigger(s): Any development activity requiring development approval and impacting streams. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 18.24 NMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1 functions replacement. Class I = 2:1 Class II/III = 1.5:1 Off-site: Allowed if no other alternatives. Class I = 3:1 Class II/III = 2:1 Out-of-kind: Not allowed Preservation: Banking: Not allowed.	Trigger(s): Development activities requiring SEPA review which impact species and habitat identified in the Newcastle Comprehensive Plan. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 18.16 and 18.24 NMC. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1 Tree Replacement. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Jurisdictional trigger through SEPA, compensatory mitigation based on comprehensive plan policies. Preservation: Banking:

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
		Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking: Allowed.			
City of Redmond	Trigger(s): Any proposed project subject to a city development permit or approval that would add or replace 5,000 sq. ft. or more of impervious surface. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 20E.90 Redmond Community Development Guide. Requirement(s): Compliance with 1992 Ecology Stormwater Manual and subsequent updates or functionally equivalent stormwater guidance. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if no other alternatives. Preservation: Banking:	Trigger(s): Any development activity as defined by Redmond Code requiring a development approval and impacting wetlands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 20D.140 Redmond Community Development Guide. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Type I Replacement – 6:1 Type I Enhancement – 2:1 Type II Replacement – 2:1 Type II Enhancement – 1:1 Type III Replacement – 2:1 Type III Enhancement – 1:1 Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking: Allowed.	Trigger(s): Any development activity as defined by Redmond Code requiring a development approval and impacting floodplains. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 20D.140 Redmond Community Development Guide. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1, no reduction in flood storage capacity. Off-site: Allowed if no other alternatives. Out-of-kind: Not allowed. Preservation: Banking:	Trigger(s): Any development activity as defined by Redmond Code requiring a development approval and impacting fish and aquatic habitat. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 20D.140 Redmond Community Development Guide. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): Equal or greater function. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Banking: Not allowed.	Trigger(s): Any development activity as defined by Redmond Code requiring a development approval and impacting upland species and habitat. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapters 20.80.20 and 20D.140 Redmond Community Development Guide. Requirement(s): Several (see data sheet). Policy/Guidance: Compensation ratio(s): 1:1 Tree Replacement. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Jurisdictional trigger through SEPA, compensatory mitigation based on comprehensive plan policies. Preservation: Banking:
City of Renton	Trigger(s): Development that alters storm water or surface drainage. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): RMC 4-6-030. Requirement(s): Provide a drainage plan for surface water flows. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if no other alternatives. Preservation: Banking:	Trigger(s): Development within or affecting wetlands. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): RMC 4-3-050. Requirement(s): No loss of wetland function, create, restore, and/or enhance a wetland so there is no reduction in wetland acreage and/or function. Policy/Guidance: Compensation ratio(s): Replacement – Category I (PFO) – 6:1 Category I (PSS) – 3:1 Category I (PEM) – 2:1 Category II (PFO) – 3:1 Category II (PSS) – 2:1 Category II (PEM) – 1.5:1 Category III (ALL) – 1.5:1 Off-site: Allowed if no other alternatives (same basin). Out-of-kind: Allowed if net benefit and meets regional goals. Preservation: Banking: Allowed.	Trigger(s): Development potentially leading to an increase in flood levels. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): RMC 4-3-050.I. Requirement(s): If grading or other activity will reduce the effective base flood storage volume, compensatory storage shall be constructed on the site. Policy/Guidance: Compensation ratio(s): 1:1, no reduction in flood storage capacity. Off-site: Allowed if no other alternatives (storage volume will be preserved over time). Out-of-kind: Not allowed. Preservation: Banking:	Trigger(s): Fish and aquatic habitat impacts. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): RMC 4-3-050. Requirement(s): Compliance with the drainage and habitat conservation standards of the RMC. Policy/Guidance: Compensation ratio(s): No net loss of function. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if net benefit. Preservation: Banking: Allowed.	Trigger(s): Protected upland species and habitat impacts. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): RMC 4-3-050K. Requirement(s): Mitigation (in addition to any required for wetland impacts) may be required on the basis of a required consultant report, peer reviewed applicant's report, or state or federal agency information. Policy/Guidance: Compensation ratio(s): N/A. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if net benefit. Preservation: Banking:
City of Tukwila	Trigger(s): Development that poses storm drainage activities or landuse/development activities that require a drainage review.	Trigger(s): Dredging, filling, alterations and relocation of wetland habitat. Authorities: Growth Management Act; State	Trigger(s): Development within a flood hazard area. Authorities: Growth Management Act; State	Trigger(s): Development within or near watercourses. Authorities: Growth Management Act; State	Trigger(s): Protected upland species and habitat impacts. Authorities: Growth Management Act; State

	Impacts on:				
Agency:	**Water Resources**	**Wetlands**	**Floodplains**	**Protected Aquatic Species and Habitat**	**Protected Upland Species and Habitat**
	Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 14.30 TMC. Requirement(s): Creation of a storm water detention facility and water quality treatment facilities. Policy/Guidance: Compensation ratio(s): Not specified. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if no other alternatives. Preservation: Banking:	Environmental Policy Act. Ordinance(s): Chapter 18.45 TMC. Requirement(s): No net loss of wetland functions and acreage; alterations will require restoration, enhancement, or creation to compensate for impacts. Policy/Guidance: Compensation ratio(s): Replacement – Category I (PFO) – 6:1 Category I (PSS) – 3:1 Category I (PEM) – 2:1 Category II (PFO) – 3:1 Category II (PSS) – 2:1 Category II (PEM) – 1.5:1 Category III (ALL) – 1.5:1 Off-site: Allowed if no other alternatives (same basin). Out-of-kind: Allowed if net benefit and meets regional goals. Preservation: Banking: Allowed.	Environmental Policy Act. Ordinance(s): Chapter 16.52 TMC. Requirement(s): The cumulative effect of any proposed development shall not increase the water surface elevation of the base flood more that 2/10^{ths}'s of a foot at any point along the river course. Policy/Guidance: Compensation ratio(s): 1:1, no reduction in flood storage capacity. Off-site: Allowed if no other alternatives (storage volume will be preserved over time). Out-of-kind: Not allowed. Preservation: Banking:	Environmental Policy Act. Ordinance(s): Chapter 18.45 TMC. Requirement(s): Mitigation plans must show how water quality, treatment, erosion control, pollution reduction, wildlife and fish habitat, and general watercourse quality will be maintained or improved. Policy/Guidance: Compensation ratio(s): No net loss of function. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if net benefit. Preservation: Banking: Allowed.	Environmental Policy Act. Ordinance(s): Chapter 18.45 TMC. Requirement(s): Mitigation plans must show how water quality, treatment, erosion control, pollution reduction, wildlife and fish habitat, and general watercourse quality will be maintained or improved. Policy/Guidance: Compensation ratio(s): N/A. Off-site: Allowed if no other alternatives (net benefit). Out-of-kind: Allowed if net benefit. Preservation: Banking:
City of Woodinville		Trigger(s): Wetland alterations. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 21.24 WMC. Requirement(s): All alterations of wetlands shall be replaced or enhanced on-site with equivalent or greater biological functions and equivalent hydrologic functions including, but not limited to, storage capacity. Policy/Guidance: Compensation ratio(s): Class I/II = 2:1 Class III = 1:1 Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not allowed. Preservation: Banking: Allowed.	Trigger(s): Grading or other development activity. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 21.24 WMC. Requirement(s): Shall not reduce the effective base flood storage volume unless effective compensatory storage that will be preserved over time is created. Policy/Guidance: Compensation ratio(s): 1:1 No net loss of flood storage capacity. Off-site: Allowed if no other alternatives (within sub-basin). Out-of-kind: Not allowed. Preservation: Banking:	Trigger(s): Fish and aquatic habitat alterations. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 21.24 WMC. Requirement(s): No net loss of stream functions on-site and no impact on stream functions above or below the site due to approved alterations. Policy/Guidance: Compensation ratio(s): No net loss Off-site: Allowed if no other alternatives (Net benefit). Out-of-kind: Not allowed. Preservation: Banking: Allowed.	Trigger(s): Protected upland species and habitat alterations. Authorities: Growth Management Act; State Environmental Policy Act. Ordinance(s): Chapter 21.16 WMC. Requirement(s): Preservation preferred; tree replacement allowed. Policy/Guidance: Compensation ratio(s): Tree replacement. Off-site: Allowed if no other alternatives. Out-of-kind: Allowed if no other alternatives. Preservation: Allowed. Banking:
Hunts Point					
Yarrow Point					
Tribal:					
Muckleshoot Tribe	Awaiting response.	Awaiting response.	Awaiting response.	Awaiting response.	Awaiting response.

APPENDIX F OF APPENDIX J. ESTIMATE OF THE AMOUNT OF COMPENSATION THAT MAY BE NEEDED IN EACH WATER RESOURCE INVENTORY AREA (WRIA) TO MITIGATE VARIOUS IMPACTS THAT ARE LIKELY TO BE UNAVOIDABLE AND WOULD NOT BE ADEQUATELY (OR AS EFFECTIVELY) MITIGATED THROUGH MINIMIZATION OR ON-SITE, IN-KIND MITIGATION

	WRIA 8										WRIA 9		
Impacts of the I-405 preferred alternative	**King County**	**Snohomish County**	**City of Bellevue**	**City of Bothell**	**City of Kirkland**	**City of Newcastle**	**City of Redmond**	**City of Renton**	**City of Woodinville**	**WRIA 8 Total**	**King County**	**City of Tukwila**	**WRIA 9 Total**
Water resources:													
	[quantity of compensation needed]	[Etc.]											
	[Etc.]												
Wetlands:													
	[quantity of compensation needed]	[Etc.]											
	[Etc.]												
Floodplains:													
	[quantity of compensation needed]	[Etc.]											
	[Etc.]												
Protected aquatic species and habitat:													
	[quantity of compensation needed]	[Etc.]											
	[Etc.]												
Protected upland species and habitat:													
	[quantity of compensation needed]	[Etc.]											
	[Etc.]												

APPENDIX G OF APPENDIX J. ANALYSIS OF OPPORTUNITIES TO AVOID, MINIMIZE OR OTHERWISE MITIGATE IMPACTS OF THE I-405 PREFERRED ALTERNATIVE ON WATER RESOURCES, WETLANDS, FLOODPLAINS, PROTECTED AQUATIC SPECIES AND HABITAT, AND PROTECTED UPLAND SPECIES AND HABITAT

Impacts of the I-405 preferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Water resources:										
Wetlands:										
Floodplains:										
Protected aquatic species and habitat:										
Protected upland species and habitat:										

[1] According to the Alternative Mitigation Policy Guidance Agreement adopted by Ecology, WDFW, and WSDOT, "avoidance" means avoiding the impact altogether by not taking a certain action or parts of an action.

APPENDIX H OF APPENDIX J. HYPOTHETICAL ANALYSIS TO AVOID, MINIMIZE OR OTHERWISE MITIGATE IMPACTS OF THE I-405 PREFERRED ALTERNATIVE ON WATER RESOURCES, WETLANDS, FLOODPLAINS, PROTECTED AQUATIC SPECIES AND HABITAT, AND PROTECTED UPLAND SPECIES AND HABITAT

Impacts of the I-405 pre-ferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Water resources:										
Potential to degrade water quality during construction:										
ACOE/Ecology:										
Entire project area		x[2]	x[3]		N/A	N/A	N/A	N/A	N/A	
Acres of new impervious area (# of basins affected):										
ACOE/Ecology:										
WRIA 8:										
(acres/# of basins)		x[2]	x[4]		N/A	N/A	N/A	N/A	X	
WRIA 9:										
(acres/# of basins)		x[2]	x[4]		N/A	N/A	N/A	N/A	X	
Loss of groundwater recharge area (in acres):										
ACOE/Ecology:										
WRIA 8:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	X	
WRIA 9:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	X	
Potential for operational impacts to groundwater:										
ACOE/Ecology:										
Entire project area		x[2]	?		N/A	N/A	N/A	N/A	X	
Wetlands:										
Acres of wetlands potentially affected:										
ACOE/Ecology/King Co.:										
Location 1:										
(acres)		x[2]	x[5]							
Location 2:										
(acres)		x[2]		x	x		x		x	
(Etc.)										
ACOE/Ecology/Snoh. Co.:										
Location 1:										
(acres)		x[2]	x[5]							

[1] According to the Alternative Mitigation Policy Guidance Agreement adopted by Ecology, WDFW, and WSDOT, "avoidance" means avoiding the impact altogether by not taking a certain action or parts of an action.

[2] These impacts have been avoided to the extent possible through project design and selection of a preferred alternative that best meets all planning level criteria, including an "environmentally responsive" criteria.

[3] Through the application of BMPs and/or off-site supplemental treatment.

[4] Through project design and proposed conservation measures, including maintaining baseline conditions within the watershed through treatment of stormwater, minimizing the creation of impervious surfaces, preservation and replanting of riparian corridors, etc.

[5] Through project design features (including stacking, bridging, retaining walls, steeper embankments, etc.) and the use of BMPs.

Impacts of the I-405 pre-ferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Location 2:										
(acres)		X[2]		X	X			X	X	
(Etc.)										
ACOE/Ecology/Bellevue:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X		X	X		X	
ACOE/Ecology/Bothell:										
(Etc.)										
ACOE/Ecology/Kirkland:										
(Etc.)										
ACOE/Ecology/Newcastle:										
(Etc.)										
ACOE/Ecology/Redmond:										
(Etc.)										
ACOE/Ecology/Renton:										
(Etc.)										
ACOE/Ecology/Tukwila:										
(Etc.)										
ACOE/Ecology/Woodin-ville:										
(Etc.)										
Acres of high priority wet-lands potentially affected:										
ACOE/Ecology/King Co.:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X	X		X		X	
(Etc.)										
ACOE/Ecology/Snoh. Co.:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X		X	X		X	
(Etc.)										
ACOE/Ecology/Bellevue:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X	X			X		X
(Etc.)										
(Etc.)										
Acres of fill:										
ACOE/Ecology/King Co.:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X		X	X		X	
(Etc.)										
ACOE/Ecology/Snoh. Co.:										
Location 1:										
(acres)		X[2]	X[5]							
Location 2:										
(acres)		X[2]		X	X		X		X	
(Etc.)										
ACOE/Ecology/Bellevue:										
Location 1:										
(acres)		X[2]	X[5]							

Impacts of the I-405 pre-ferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Location 2:										
(acres)		x[2]		x		x	x		x	
(Etc.)										
(Etc.)										
Floodplains:										
Flood storage loss:										
King County:										
Location 1:										
(acres)	x[6]									
Location 2:										
(acres)	x[6]									
(Etc.)										
Snohomish County:										
Location 1:										
(acres)	x[6]									
Location 2:										
(acres)	x[6]									
(Etc.)										
Protected aquatic species and habitat:										
Riparian encroachments:										
WRIA 8:										
NMFS/USFWS/Ecology/ King Co.:										
Location 1:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
Location 2:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
(Etc.)										
NMFS/USFWS/Ecology/ Snohomish Co.:										
Location 1:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
Location 2:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
(Etc.)										
NMFS/USFWS/Ecology/ Bellevue:										
Location 1:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
Location 2:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
(Etc.)										
(Etc.)										
WRIA 9:										
NMFS/USFWS/Ecology/ King Co.:										
Location 1:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
Location 2:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
(Etc.)										
NMFS/USFWS/Ecology/ Tukwila:										
Location 1:										
(acres)		x[2]	x[4]		N/A	N/A	N/A	N/A	x	
Location 2:										

[6] Through project design. All structures and fill will be located above the 100-year floodplain.

Impacts of the I-405 pre-ferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
(Etc.)										
Acres of new impervious area (# of basins affected):										
WRIA 8:										
NMFS/USFWS/Ecology/ King Co.:										
Location 1:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
Location 2:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
NMFS/USFWS/Ecology/ Snohomish Co.:										
Location 1:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
Location 2:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
NMFS/USFWS/Ecology/ Bellevue:										
Location 1:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
Location 2:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
(Etc.)										
WRIA 9:										
NMFS/USFWS/Ecology/ King Co.:										
Location 1:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
Location 2:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
NMFS/USFWS/Ecology/ Tukwila:										
Location 1:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
Location 2:										
(acres)		X[2]	X[4]		N/A	N/A	N/A	N/A	X	
(Etc.)										
(Etc.)										
Protected upland species and habitat:										
Lineal feet of bald eagle territory impacted:										
USFWS/Snohomish Co.:										
Location 1:										
(Lineal feet)		X[2]	X		N/A	N/A	N/A	N/A	X	
Location 2:										
(Lineal feet)		X[2]	?		N/A	N/A	N/A	N/A		
(Etc.)										
USFWS (except Snoh. Co.):										
Location 1:										
(Lineal feet)		X[2]	X		N/A	N/A	N/A	N/A	X	
Location 2:										
(Lineal feet)		X[2]	?		N/A	N/A	N/A	N/A		
(Etc.)										
Lineal feet of urban natural open										

Impacts of the I-405 pre-ferred alternative that must be avoided, minimized, or otherwise mitigated	Capable of being totally avoided[1]?		Capable of being fully mitigated to the point of no net-loss or no significant impact through practicable minimization measures?		All remaining impacts capable of being fully mitigated to the point of no net-loss or no significant impact through practicable on-site, in-kind compensation measures?		Does the already implemented early-action mitigation have a greater environmental benefit?		Suitable for use of early-action mitigation credits?	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
space affected:										
King Co.:										
Location 1:										
(Lineal feet)		X[2]	X							
Location 2:										
(Lineal feet)		X[2]		X	X		X		X	
(Etc.)										
Snohomish Co.:										
Location 1:										
(Lineal feet)		X[2]	X							
Location 2:										
(Lineal feet)		X[2]		X	X		X		X	
(Etc.)										
(Etc.)										
Lineal feet of riparian area affected:										
King Co.:										
Location 1:										
(Lineal feet)		X[2]	X							
Location 2:										
(Lineal feet)		X[2]		X	X		X		X	
(Etc.)										
Snohomish Co.:										
Location 1:										
(Lineal feet)		X[2]	X							
Location 2:										
(Lineal feet)		X[2]		X	X		X		X	
(Etc.)										
(Etc.)										

APPENDIX K
Not Used

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APPENDIX L

I-405 Corridor Program Wildlife Habitats Associated with the I-405 Corridor Right-of-Way

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Appendix L:
Wildlife Associated with the I-405 Corridor Right-of Way Habitats

Common Name	Scientific Name	Habitat									
		Herbaceous	Shrub	Deciduous	Coniferous	Mixed C/D	Riparian	Wetland (Fo)	Wetland (S-S)	Wetland (Em)	Wetland (OW)
BIRDS											
Great blue heron	*Ardea herodias*	X					X			X	X
Canada goose	*Branta canadensis*	X								X	X
Green-winged teal	*Anas crecca*									X	X
Cinnamon teal	*Anas cyanoptera*									X	X
Mallard	*Anas platyrhynchos*						X			X	X
Northern pintail	*Anas acuta*									X	X
Northern shoveler	*Anas clypeata*									X	X
American wigeon	*Anas americana*									X	X
Gadwall	*Anas strepera*									X	X
Red-tailed hawk	*Buteo jamaicensis*	X		X	X	X					
Sharp-shinned hawk	*Accipiter striatus*			X	X	X					
Cooper's hawk	*Accipiter cooperii*			X	X	X					
Bald eagle	*Haliaeetus leucocephalus*			X	X	X	X				X
American kestrel	*Falco sparverius*	X		X		X					
California quail	*Callipepla californica*	X	X								
Ring-necked pheasant	*Phasianus colchicus*	X	X								
American coot	*Fulica americana*								X	X	X
Killdeer	*Charadrius vociferus*	X									
Common snipe	*Gallinago gallinago*	X	X								
Spotted sandpiper	*Actitis macularia*						X				
California gull	*Larus californicus*	X									
Ring-billed gull	*Larus delawarensis*	X									
Rock dove	*Columba livia*	X									
Great horned owl	*Bubo virginianus*			X	X	X	X				
Short-eared owl	*Asio flammeus*	X	X							X	
Northern saw-whet owl	*Aegolius acadicus*			X	X	X					
Northern pygmy owl	*Glaucidium gnoma*				X	X					
Barn owl	*Tyto alba*	X		X		X					
Rufous hummingbird	*Selasphorus rufus*		X				X				
Anna's hummingbird	*Calypte anna*			X		X					
Northern flicker	*Colaptes auratus*		X	X	X	X	X				
Pileated woodpecker	*Dryocopus pileatus*			X	X	X					
Red-breasted sapsucker	*Sphyrapicus ruber*		X	X	X	X					
Downy woodpecker	*Picoides pubescens*			X	X	X	X				
Hairy woodpecker	*Picoides villosus*			X	X	X	X				
Western wood-pewee	*Contopus sordidulus*			X	X	X	X				
Willow flycatcher	*Empidonax traillii*		X	X			X				
Pacific-slope flycatcher	*Empidonax difficilis*			X	X	X	X				
Tree swallow	*Tachycineta bicolor*	X	X		X	X	X	X	X	X	X
Violet-green swallow	*Tachycineta thalassina*	X	X	X	X	X	X	X	X	X	X
Barn swallow	*Hirundo rustica*	X	X						X	X	X
Steller's jay	*Cyanocitta stelleri*		X	X	X	X					
American crow	*Corvus brachyrhynchos*	X	X	X	X	X	X	X	X	X	
Black-capped chickadee	*Parus atricapillus*		X	X	X	X	X	X	X		
Chestnut-backed chickadee	*Parus rufescens*		X	X	X	X	X	X	X		
Common bushtit	*Psaltriparus minimus*		X	X		X	X	X	X		
Red-breasted nuthatch	*Sitta canadensis*			X	X	X	X				
Brown creeper	*Certhia americana*			X	X	X	X				
Bewick's wren	*Thryomanes bewickii*		X	X	X	X	X		X		

Appendix L:
Wildlife Associated with the I-405 Corridor Right-of Way Habitats

Common Name	Scientific Name	Habitat									
		Herbaceous	Shrub	Deciduous	Coniferous	Mixed C/D	Riparian	Wetland (Fo)	Wetland (S-S)	Wetland (Em)	Wetland (OW)
Winter wren	*Troglodytes troglodytes*		X	X	X	X	X	X			
Marsh wren	*Cistothorus palustris*								X	X	
American robin	*Turdus migratorius*	X	X	X	X	X	X	X	X	X	
Varied thrush	*Ixoreus naevius*		X	X	X	X	X	X	X		
Swainson's thrush	*Catharus ustulatus*		X	X	X	X	X	X	X		
Northern shrike	*Lanius excubitor*	X	X						X	X	
Golden-crowned kinglet	*Regulus satrapa*			X	X	X	X	X			
Ruby-crowned kinglet	*Regulus calendula*			X	X	X	X	X			
Cedar waxwing	*Bombycilla cedrorum*		X	X	X	X	X	X	X		
European starling	*Sturnus vulgaris*	X	X	X	X	X	X	X	X	X	
Solitary vireo	*Vireo solitarius*		X	X	X	X	X	X	X		
Hutton's vireo	*Vireo huttoni*		X	X	X	X	X	X	X		
Warbling vireo	*Vireo gilvus*		X	X	X	X	X	X	X		
Red-eyed vireo	*Vireo olivaceus*			X			X				
Orange-crowned warbler	*Vermivora celata*		X	X			X	X	X		
Yellow-rumped warbler	*Dendroica coronata*		X	X	X	X	X	X	X		
Yellow warbler	*Dendroica petechia*		X	X		X	X	X	X		
Black-throated gray warbler	*Dendroica nigrescens*			X	X	X	X	X			
Common yellowthroat	*Geothlypis trichas*	X	X				X		X	X	
Wilson's warbler	*Wilsonia pusilla*		X	X		X	X	X	X		
House sparrow	*Passer domesticus*	X	X								
Western meadowlark	*Sturnella neglecta*	X	X								
Red-winged blackbird	*Agelaius phoeniceus*		X						X	X	X
Brewer's blackbird	*Euphagus cyanocephalus*	X							X	X	X
Bullock's oriole	*Icterus galbula bullockii*		X	X		X	X	X	X		
Brown-headed cowbird	*Molothrus ater*	X	X	X	X	X	X	X	X	X	
Western tanager	*Piranga ludoviciana*		X	X	X	X	X	X	X		
Black-headed grosbeak	*Pheucticus melanocephalus*			X	X	X	X	X			
Evening grosbeak	*Hesperiphona vespertina*		X	X	X	X	X				
Purple finch	*Carpodacus purpureus*			X	X	X	X				
House finch	*Carpodacus mexicanus*		X						X		
Pine siskin	*Carduelis pinus*			X	X	X	X	X			
American goldfinch	*Carduelis tristis*	X	X								
Rufous-sided towhee	*Pipilo erythrophthalmus*		X	X	X	X	X	X	X		
Dark-eyed junco	*Junco hyemalis*	X	X	X	X	X	X	X	X		
White-crowned sparrow	*Zonotrichia leucophrys*	X	X						X		
Golden-crowned sparrow	*Zonotrichia atricapilla*						X				
Chipping sparrow	*Spizella passerina*	X	X	X					X		
Savannah sparrow	*Passerculus sandwichensis*	X								X	
Fox sparrow	*Passerella iliaca*		X	X	X	X	X	X	X		
Song sparrow	*Melospiza melodia*		X	X	X	X	X	X	X		
MAMMALS											
Opossum	*Didelphis marsupialis*	X	X	X	X	X	X	X	X	X	
Vagrant shrew	*Sorex vagrans*	X	X				X		X	X	
Coast mole	*Scapanus orarius*	X	X	X		X					
Townsend's mole	*Scapanus townsendii*	X	X								
Little brown bat	*Myotis lucifugus*			X	X	X	X	X	X	X	X
California myotis	*Myotis californicus*			X	X	X	X	X	X	X	X
Yuma myotis	*Myotis yumanensis*		X	X	X	X	X	X	X	X	X
Silvery-haired bat	*Lasionycteris noctivagans*			X	X	X	X	X	X	X	X

Appendix L:
Wildlife Associated with the I-405 Corridor Right-of Way Habitats

Common Name	Scientific Name	Habitat									
		Herbaceous	Shrub	Deciduous	Coniferous	Mixed C/D	Riparian	Wetland (Fo)	Wetland (S-S)	Wetland (Em)	Wetland (OW)
Big brown bat	*Eptesicus fuscus*			X	X	X	X	X	X	X	X
Deer mouse	*Peromyscus maniculatus*	X	X	X	X	X	X	X	X	X	
Townsend's meadow mouse	*Microtus townsendii*	X	X							X	
Oregon meadow mouse	*Microtus oregoni*	X	X	X	X	X	X	X		X	
Norway rat	*Rattus norvegicus*	X	X				X		X		
Black rat	*Rattus rattus*	X	X				X		X		
House mouse	*Mus musculus*	X	X								
Mountain beaver	*Aplodontia rufa*			X	X	X	X	X			
Muskrat	*Ondatra zibethicus*		X				X		X	X	X
Beaver	*Castor canadensis*						X	X	X	X	X
Townsend's chipmunk	*Eutamias townsendii*			X	X	X					
Douglas' squirrel	*Tamiasciurus douglasii*				X	X					
Eastern gray squirrel	*Sciurus carolinensis*			X	X	X					
Eastern cottontail	*Sylvilagus floridanus*	X	X								
Long-tailed weasel	*Mustela frenata*		X	X	X	X	X	X			
Striped skunk	*Mephitis mephitis*		X	X		X	X		X		
Raccoon	*Procyon lotor*			X	X	X	X	X	X	X	
Coyote	*Canis latrans*	X	X	X	X	X	X				
Black-tailed deer	*Odocoileus hemionus columbianus*		X	X	X	X	X				
AMPHIBIANS											
Rough-skinned newt	*Taricha granulosa*			X	X	X	X	X	X		X
Pacific giant salamander	*Dicamptodon ensatus*				X	X	X	X			
W. red-backed salamander	*Plethodon vehiculum*				X	X	X				
Northwestern salamander	*Ambystoma gracile*				X	X	X	X			X
Long-toed salamander	*Ambystoma macrodactylum*			X	X	X	X	X			
Ensatina	*Ensatina eschscholtzi*			X	X	X	X	X			
Pacific treefrog	*Hyla regilla*		X	X	X	X	X	X	X	X	X
Red-legged frog	*Rana aurora*			X	X	X	X	X			X
Bullfrog	*Rana catesbeiana*										X
Western toad	*Bufo boreas*			X	X	X	X	X	X	X	X
REPTILES											
N. alligator lizard	*Elgaria coerulea*		X		X						
Common garter snake	*Thamnophis sirtalis*	X	X	X	X	X	X	X			
N.W. garter snake	*Thamnophis ordinoides*	X	X	X	X	X					
Source: Brown 1985, Guenther and Kucera 1978, Hunn 1982, Ingles 1965, Nussbaum et al. 1983, and Wahl and Paulson 1977.											

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APPENDIX M

I-405 Corridor Program
Supporting Documentation
for
Transportation Responses to Comments

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APPENDIX M

Transportation Supporting Documentation for Responses to Comments

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L52.TR-3
L52.TR-8

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L49.TR-3

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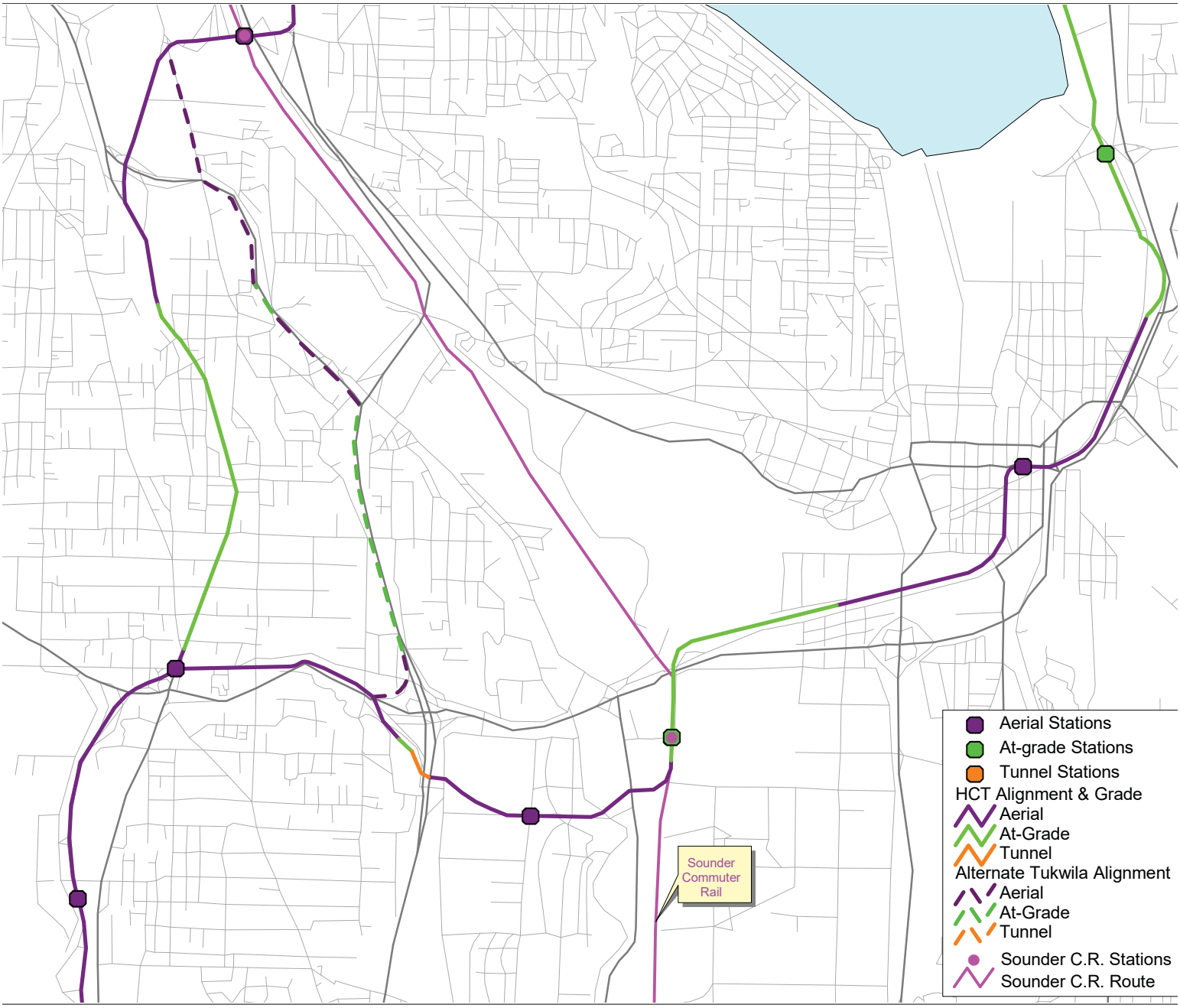
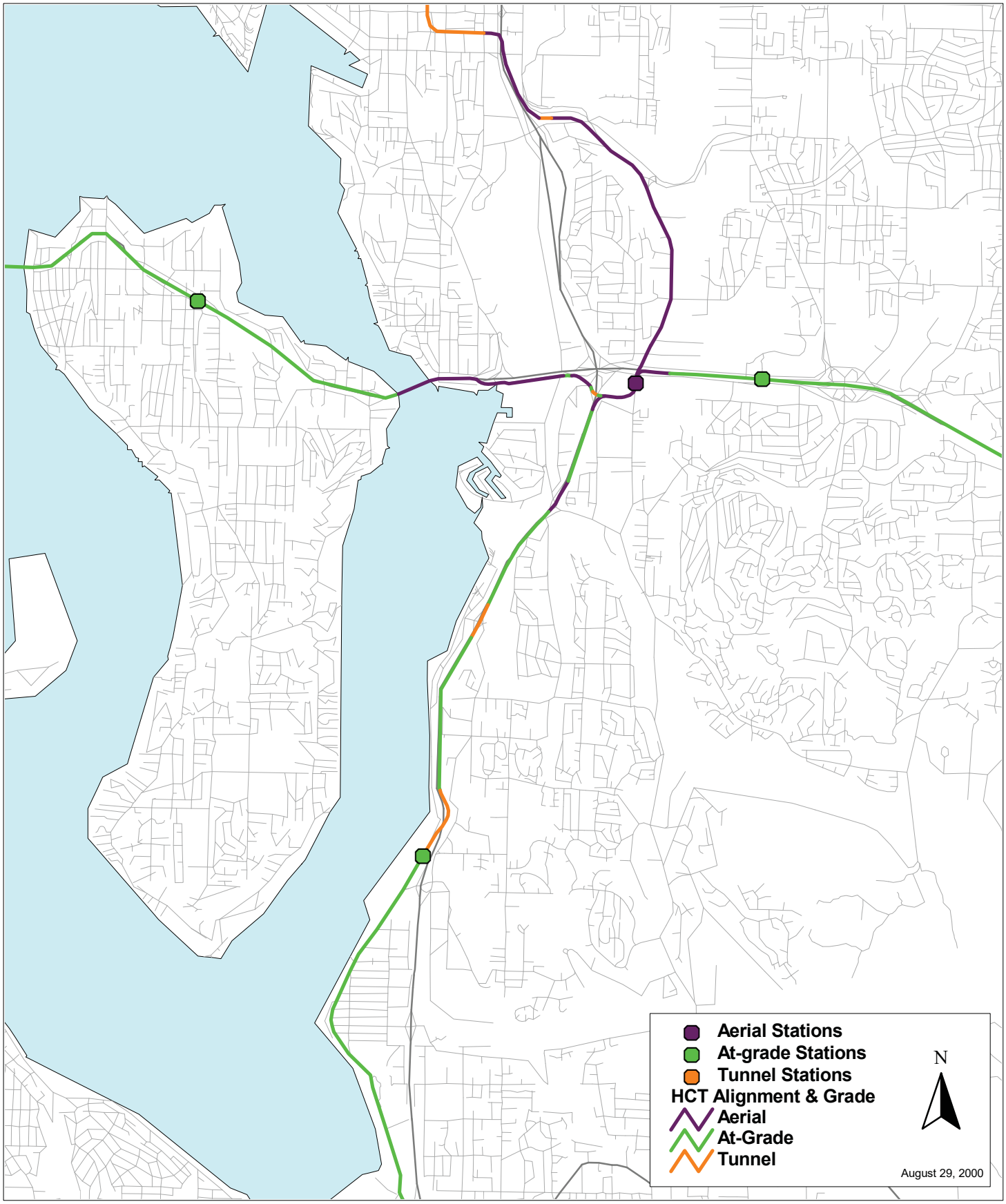
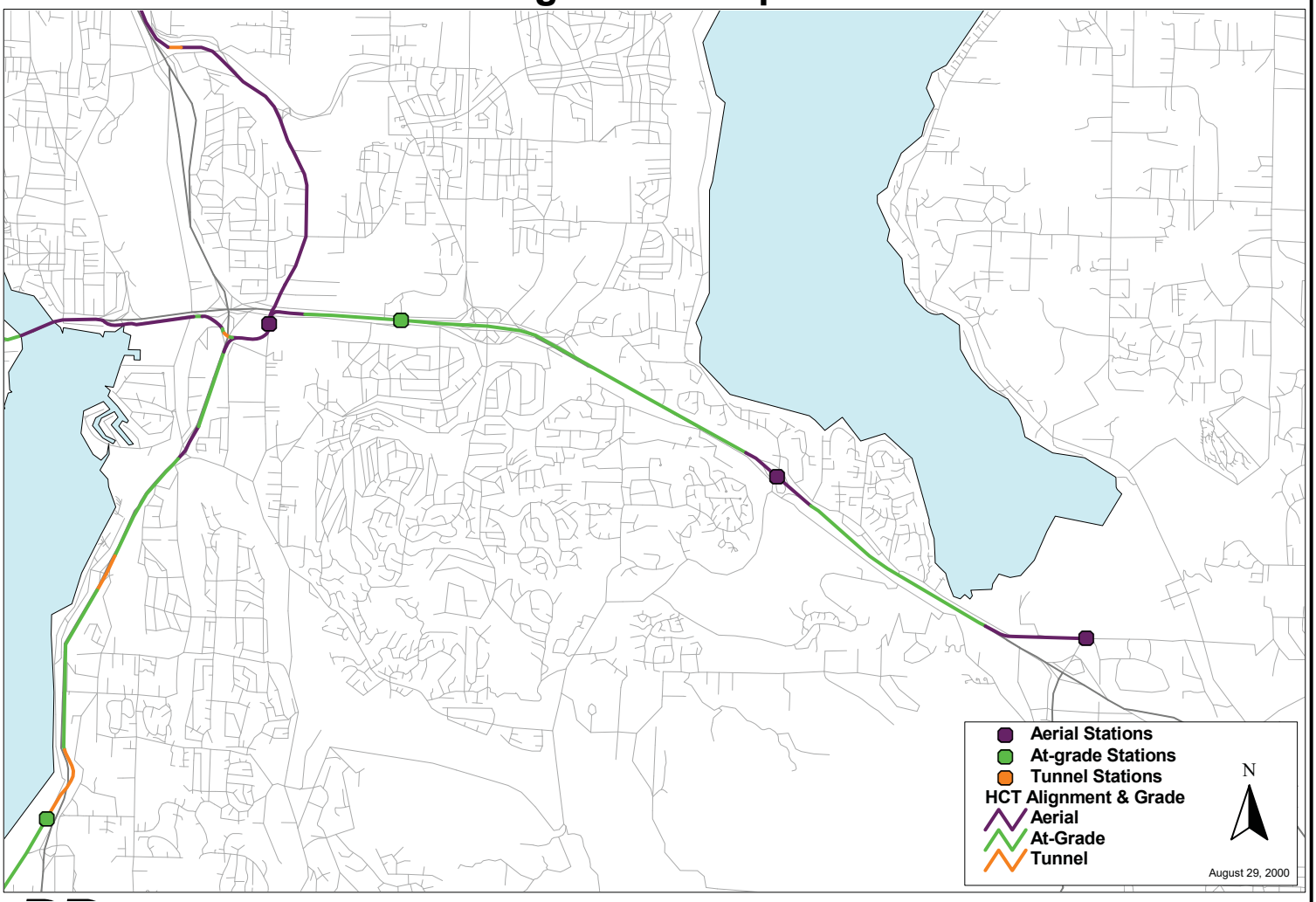
SeaTac International Airport to Renton



Renton to Bellevue

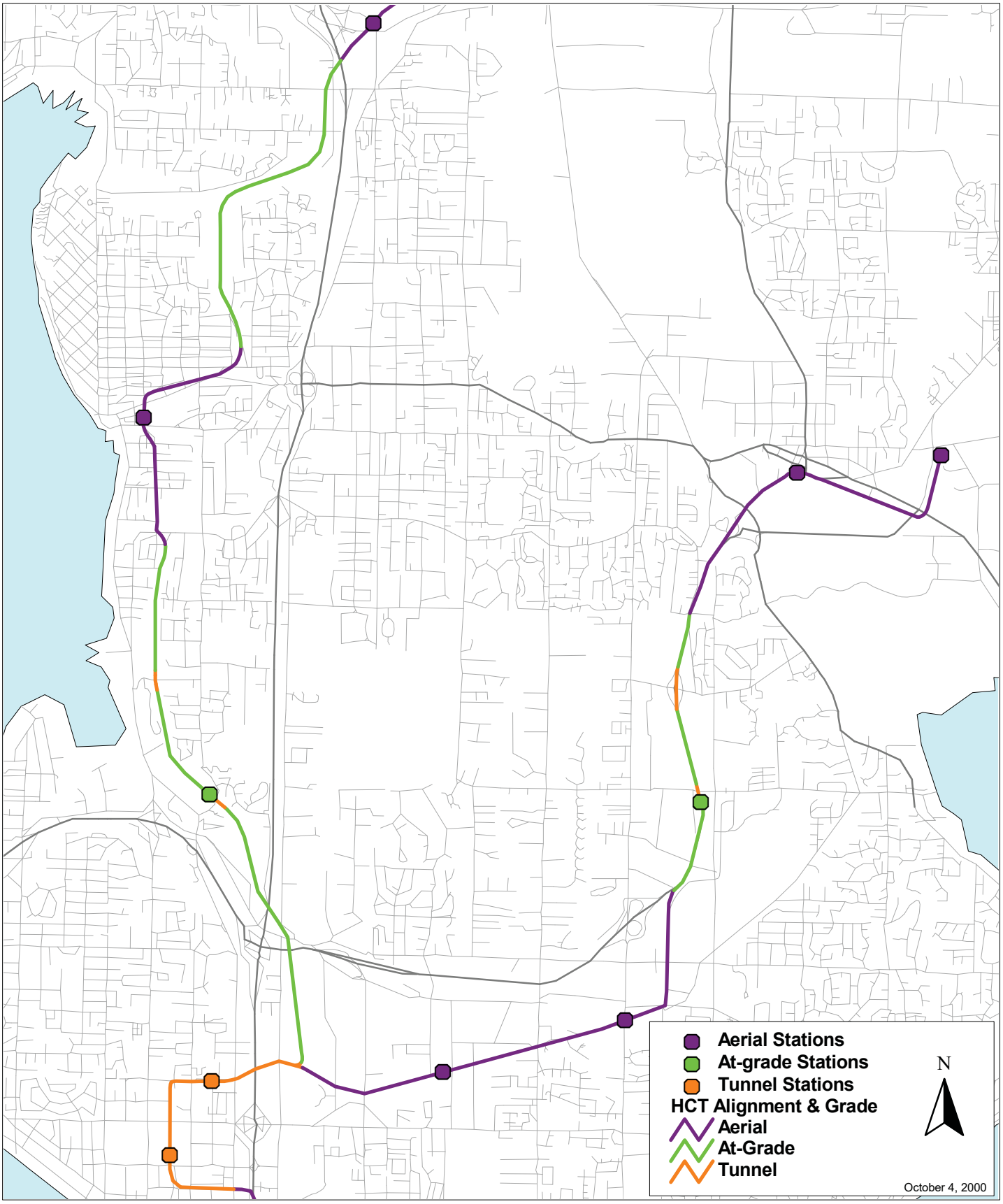


Eastgate to Issaquah



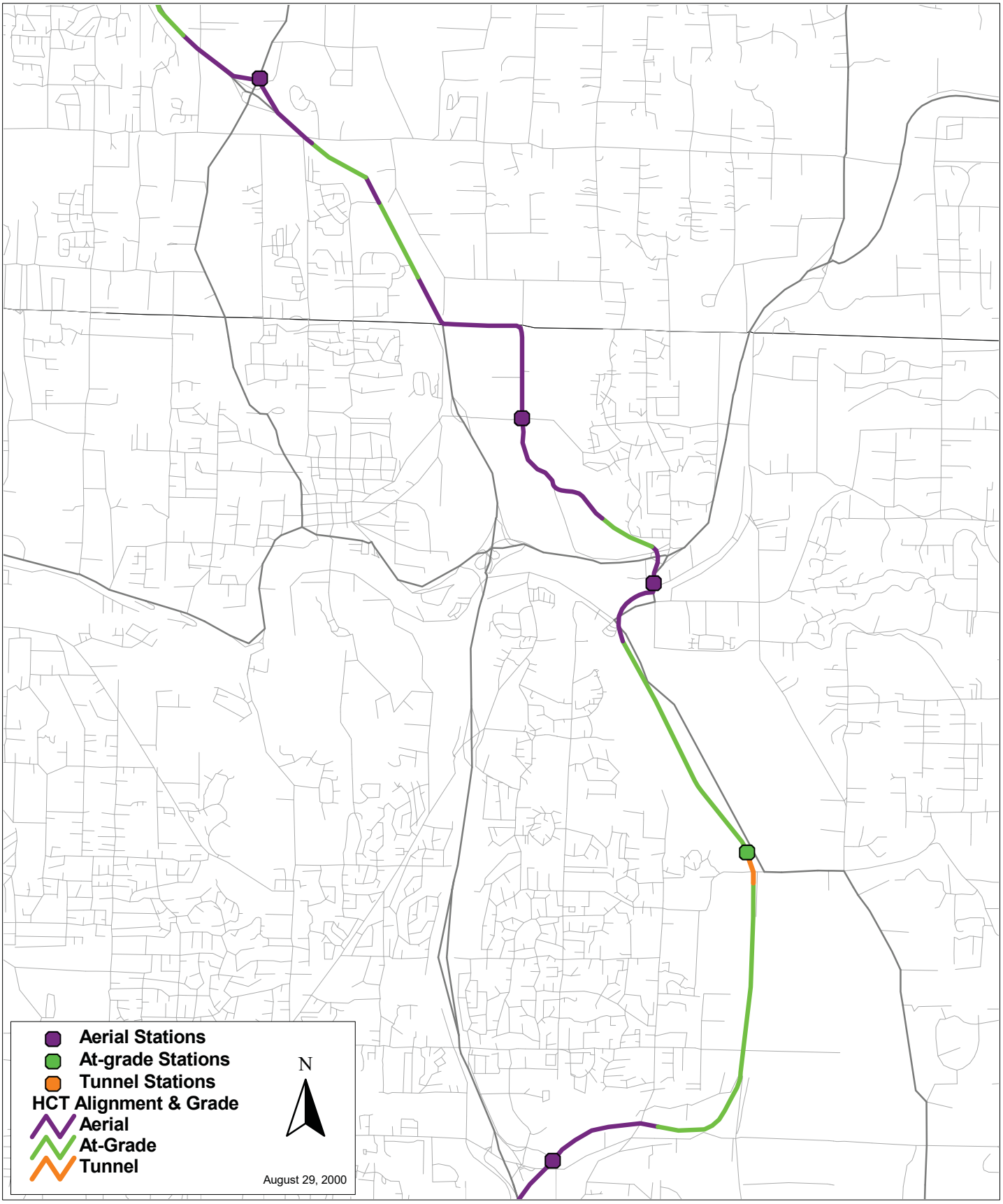
PB 100 YEARS

Bellevue to Totem Lake & Redmond



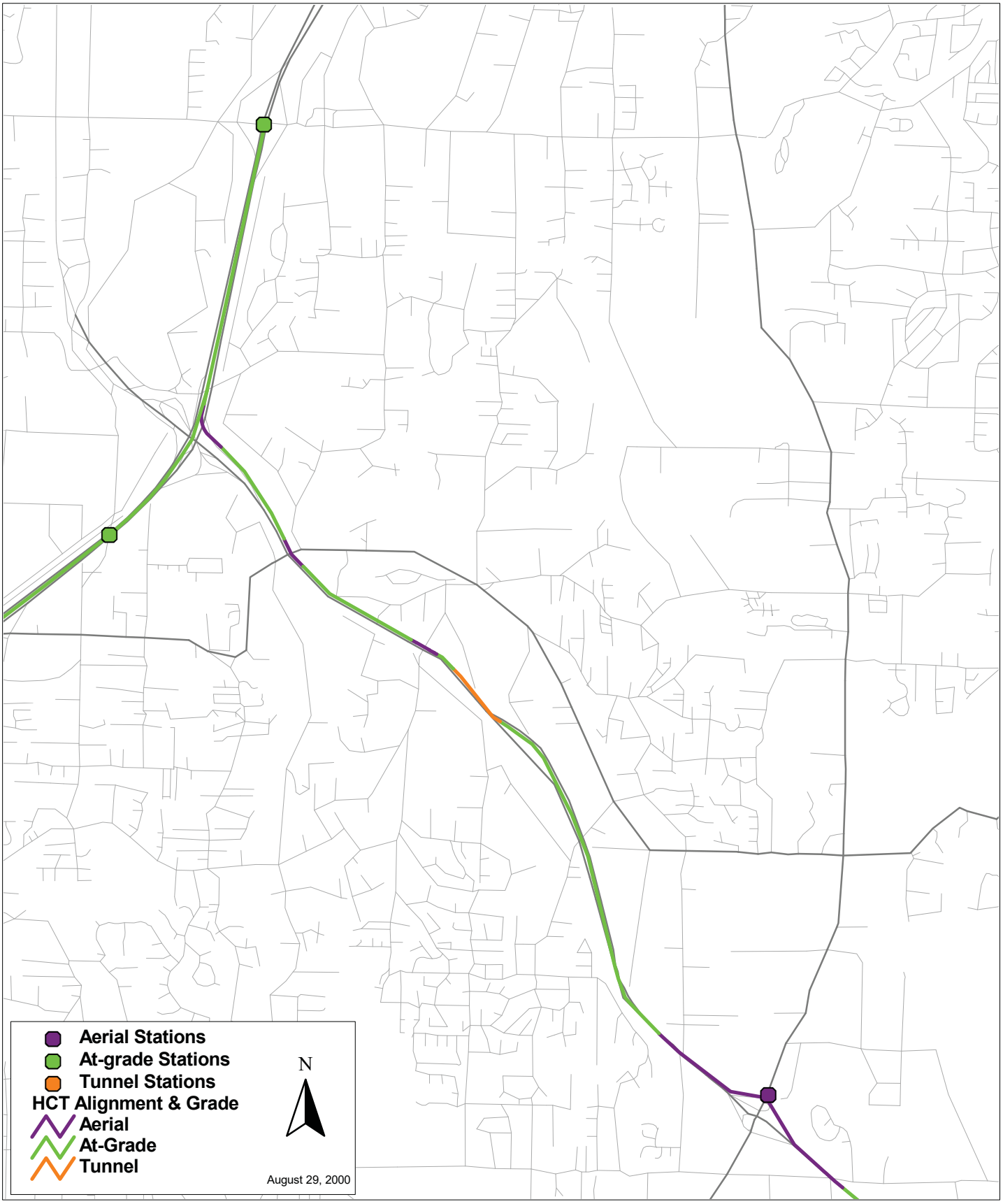
PB 100 YEARS

Totem Lake to Canyon Park



PB 100 YEARS

Canyon Park to Swamp Creek



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2020 No Action AM Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	16	9.60
4002	W QU. ANNE-MADRONA 2	b	25	12.97
4003	QUEEN ANNE-MADRONA 3	b	36	15.12
4004	QU ANNE-JUDKINS PK 4	b	23	14.56
4005	NORTHGATE TC-UW 67	b	10	9.43
4006	RAINR(HEND)-UW 7A	b	26	13.73
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	90	3.67
4009	CAP HILL-SEA CBD 12	b	15	8.37
4010	CAP HILL-SEA CBD 10	b	12	6.99
4011	MADISON PRK-FERRY 11	b	45	8.00
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	20	4.67
4014	SUMMIT-MT BAKER 14	b	20	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	120	8.92
4017	WHITE CTR-SEACBD 20R	b	45	6.94
4018	SEATTLE CBD - SPU 13	b	35	4.62
4019	SUMMIT-SEACBD 14	b	50	6.11
4020	QUEEN ANNE-1ST HLL 3	b	60	5.74
4021	SEA CBD-QUEEN ANNE 3	b	90	3.61
4022	RAINR BCH-SEA CBD 7X	b	23	10.07
4029	UW-RAINR(HEND) 7AR	b	60	13.78
4031	RAINR(HEND)-BRDWY 7C	b	90	10.35
4032	S RAINIER BCH-UW 7D	b	90	15.21
4033	SEACBD-S RAIN BCH 7E	b	26	8.55
4034	UW-S RAINIER BCH 7F	b	30	15.26
4035	BRDWY-S RAINR BCH 7G	b	30	11.72
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4043	CBD-MONTLAKE-UW 43	b	14	5.19
4045	CAP HILL-MNTLK-UW 43	b	30	3.97
4046	Q ANNE-WLNGFRD-UW 45	b	45	4.90
4047	UW-MONTLAKE-CBD 43	b	13	5.29
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.26

4063	HONEYWELL EXPRESS-WD	b	60	37.06
4098	FERRY TERM-SEACBD 98	b	45	1.56
4099	WATERFRONT STCAR 99	b	40	3.66
4103	WHITE CTR-SEA CBD 20	b	15	7.13
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	180	33.06
4150	YAR-EVGR-BTC VN 924B	b	90	10.91
4151	FACTRIA-NEWCSTL 219B	b	60	14.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	32	28.11
4155	FACTORIA-BELLVUE 921	b	35	17.80
4156	EVGR-YAR-BTC VN 924A	b	90	10.91
4157	FACTRIA-NEWCSTL 219A	b	60	14.77
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	60	53.50
4160	WDNVL-KRKLND VAN 931	b	30	30.42
4161	FACT-NWCSTL DART 925	b	60	15.30
4162	CRNATN-RDMND VAN 922	b	180	16.52
4163	DUVAL-N.BEND VAN 929	b	180	41.51
4164	KC CRTHS-Y S CTR 944	b	60	1.09
4165	KENMR-KNGSGT VAN 935	b	36	12.40
4169	CRSSRDS-EGTE VAN 923	b	36	8.18
4181	ANNAPOLIS COMUTER 81	b	75	7.03
4183	POULSBO/BAINBRG X 90	b	45	29.22
4184	KINGSTON/BAINBRDG 91	b	90	33.80
4186	POULSBO/KING-SUQ 92R	b	120	11.50
4187	POULSBO-BAINBR EX 90	b	30	14.59
4188	SUQM P&R/BAINBRDG 91	b	90	8.16
4193	MANZANITA 93	b	60	9.17
4194	AGATE POINT 94	b	60	10.29
4195	BATTLE POINT 95	b	60	9.98
4196	SUNRISE 96	b	60	10.34
4197	CRYSTAL SPRINGS 97	b	60	8.56
4198	FORT WARD 98	b	60	6.07
4199	BILL POINT 99	b	60	6.12
4204	BRANSONWOOD 4	b	90	8.86
4205	CEDAR HEIGHTS 5	b	30	6.46
4206	BETHEL 6	b	90	13.44
4207	SOUTH PARK 7	b	90	13.20
4210	CROSSTOWN EXP 11	b	50	12.56
4212	SILVERDALE WEST 12	b	60	15.08
4213	SILVERDALE LTD 13	b	90	15.00
4215	MCWILLIAMS-SHTTL 15	b	45	9.24
4216	BANGOR EXTENSION 13	b	120	23.48
4217	KITSP MALL LTD 17	b	75	17.66
4220	NAVY YARD CITY 20	b	50	8.18
4221	PERRY AVENUE 21	b	30	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	45	4.59
4225	EAST PARK 25	b	60	10.78
4226	WEST PARK 26	b	60	4.01

4227	OLYMPIC COLLEGE 24R	b	90	4.59
4228	WEST PARK 26R	b	90	4.01
4229	TRENTON AVENUE 29	b	60	6.10
4233	SILVRDL-BAINBRDGE 33	b	90	22.73
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	120	3.58
4236	RIDGETOP SHUTTLE 36	b	120	3.73
4237	SILVRDL-BAINBRDG 33R	b	120	23.31
4263	PT JEFFERSON CMTR 63	b	120	23.02
4266	HANSVILLE COMUTER 66	b	120	17.94
4285	MULLENIX EXPRESS 85	b	120	8.74
4286	SOUTHWORTH SHUTTL 86	b	60	24.90
4287	PURDY EXPRESS 87	b	120	25.50
4947	RNBCH-EVT BOEING 947	b	30	35.28
4948	BLLRD-EVT BOEING 948	b	30	27.58
4949	FEDWY-EVT BOEING 949	b	30	51.80
4950	W SEA-EVT BOEING 950	b	30	33.58
4951	ESTLK-EVT BOEING 951	b	30	25.48
4952	AUB-RN-EV BOEING 952	b	30	48.89
4954	REN-405-EV BOING 954	b	30	34.14
4965	OVRLK-EVT BOEING 965	b	30	31.63
4970	AUB-RENTN BOEING 970	b	30	18.45
5001	BEVERLY LANE 2	b	30	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5005	GLENWOOD-SEAHURST 8	b	60	8.86
5012	SILVER LAKE 20	b	30	28.82
5014	EVT CC-MUKILTEO 23	b	36	22.64
5016	PEACOCK HILL 112	b	60	15.38
5017	GIG HARBOR-TAC 102X	b	45	21.10
5019	DARRNGTN-ARLNGTN 230	b	90	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	30	19.70
5024	LYNN-MTLKTER-EDM 140	b	30	15.84
5025	LYNNWOOD-UW 855E	b	18	15.98
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	30	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	LYNNWOOD-UW 850	b	30	15.08
5037	EVERETT-UW 860	b	30	24.11
5038	MUKILTEO-UW 880	b	45	22.96
5040	EDMONDS-UW 870	b	36	16.38
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	60	13.28
5044	PUGET PK-MARN PR 760	b	60	3.15
5045	GRAN FALLS-EVRTT 280	b	36	35.40
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	30	18.14
5050	UPS-TCC 16	b	30	16.40

5051	TACOMA MALL 57	b	30	10.64
5052	GRANDVIEW DRIVE 20	b	60	23.28
5053	PAC AVE TO GRAHAM 46	b	60	41.52
5054	N ORCHARD 50	b	40	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	15	10.02
5059	TIDEFLATS 60	b	45	9.05
5060	PORTLAND AVE 41A	b	90	6.61
5061	PORTLAND AVE 41	b	60	5.65
5062	MCKINLEY AVE 42	b	30	10.94
5063	PORTLAND AVE 41AR	b	30	6.61
5064	YAKIMA 45	b	25	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	35	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.52
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	60	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	15	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	50	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	90	26.38
5086	PACIFIC AVE 46AR	b	45	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	19.38
5088	FEDERAL WAY 500	b	30	22.98
5090	PUYALUP-RIVER RD 400	b	90	10.32
5091	FED WAY EXPRESS 501	b	60	11.43
5092	112TH STREET 410	b	60	32.12
5093	PUYALLUP-ENMCLW 406R	b	60	18.96
5094	BONNEY LK-ENMCLW 406	b	120	10.38
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	24	13.53
5098	NORTH 30TH ST 13	b	30	13.01
5100	GREENWOOD-SEA CBD 5X	b	30	6.81
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	21	23.46
5103	BROADVIEW-FREMNT 28E	b	26	12.56
5104	GRNWD-UW-COL CTY 48D	b	90	11.14
5105	COLCTY-UW-CWN PK 48E	b	45	8.58
5106	SUNSET HILL-CBD 17X	b	45	8.03
5107	SUNSET HILL-CBD 17	b	24	17.31
5108	W MAGNOLIA-CBD 19	b	45	7.55

5109	CANYON PARK-SCBD 435	b	36	22.46
5110	LYLHT-UW-HANF ST 48C	b	60	12.10
5111	RAIN BCH-SEA CBD 39	b	30	10.25
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	24	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	90	12.48
5120	MAGNOLIA-SEA CBD 33	b	20	7.19
5121	GRNLK-FREMNT-CBD 26X	b	36	7.19
5122	ADMRL DIST-BOEING 34	b	90	14.00
5123	HARBOR ISLAND 35	b	90	5.66
5124	ADM DST-ALKI-CBD 37E	b	36	16.78
5126	MAGNOLIA-SEA CBD 33R	b	30	7.99
5127	RAIN BCH-SEA CBD 36	b	30	19.28
5128	LYLHT-UW-COL CTY 48B	b	45	13.15
5129	BEACON HL-SEA CBD 36	b	15	9.58
5130	STNWD-MRYVL-SCBD 422	b	60	54.08
5131	BALLARD LOCKS-UW 46	b	45	5.26
5132	EVERETT-SEA CBD 420	b	60	31.98
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	23	21.24
5135	WTCTR-SSCC-BEACON 50	b	60	19.02
5136	FAUNTLEROY-SEA 54X	b	30	8.16
5137	CBD-ADMIRAL 55R	b	23	7.84
5138	LOYAL HEIGHTS-UW 48X	b	60	7.39
5139	RAIN BCH-SEA CBD 39X	b	60	9.07
5140	GEORGTWN-BROADWAY 60	b	26	6.88
5141	NORTHGATE-UW 68	b	15	13.16
5143	ADM DST-ALKI-CBD 37	b	90	15.41
5144	SEA CBD-RAIN BCH 39R	b	45	11.09
5146	WHITTIER HTS-CBD 28	b	25	7.52
5147	MARYSVIL-SEA CBD 421	b	75	36.14
5148	ADMIRAL-CBD 55	b	15	7.95
5149	SEACBD-RB-S.CTR 39R	b	90	17.48
5150	JACKSON PARK-UW 78	b	45	5.48
5152	AURORA V EX 359X	b	18	13.15
5154	BLUE RIDGE EX 15X	b	23	7.17
5156	MARINER PR-SCBD 411	b	18	22.25
5158	WEDGEWD-UW-BOEING 40	b	90	16.69
5159	BOE-MRNR PR-SCBD 411	b	23	28.04
5160	HILNDS-I90-SEA 114	b	36	17.40
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	30	12.18
5163	DES MOINES-SCBD 132	b	90	43.21
5164	BURIEN-SEA CBD 130R	b	60	20.47
5165	BURIEN-SEA CBD 132	b	30	13.09
5166	BURIEN-SEA CBD 132R	b	60	12.55
5167	BOEING-AUBURN 154	b	20	22.82
5168	FAIRWOOD-STHCNTR 155	b	40	23.43
5169	RENTON CIRCULATR 110	b	15	8.34
5171	FAUNTLEROY-SEA 116X	b	26	9.69

5172	FED WAY-AUBURN 181	b	30	27.20
5173	BURIEN-SEATTLE 136R	b	45	11.75
5174	BURIEN-WCTR-SEA 137R	b	60	13.04
5175	RENTN-BOEING IND 108	b	90	11.57
5176	BLK DIA-RENT-SEA 143	b	90	32.00
5177	RENTON-CBD 109	b	90	17.65
5178	SEA-FAUNTLEROY 116R	b	120	9.88
5179	BURTON-VASHN HTS 118	b	60	10.21
5180	DES MOINES-SEA 130E	b	45	19.33
5181	TIMBERLANE-KENT 168	b	60	21.87
5182	BURIEN P&R-UW 133X	b	60	16.82
5183	AMBAUM EXPRESS 136E	b	60	11.26
5184	BURIEN-509-CBD 137E	b	45	11.52
5185	TAHLQH-VASH-SEA 118X	b	120	27.41
5187	BOEING-FEDWAY 173	b	60	20.78
5188	VASH HTS-TAHLQUH 118	b	60	16.30
5189	SHOREWOOD-SCBD 113R	b	60	9.29
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5193	GREENWOOD-SEA CBD 5	b	90	6.77
5195	STAR LK - SEA 192	b	36	20.41
5196	VASH HTS-BURTON 118	b	120	12.32
5197	KEY CENTER 113	b	45	17.90
5200	UW-SEATTLE CBD 70	b	10	10.93
5202	AURORA V-SEACBD 360E	b	40	12.71
5203	NORTHCITY-OVERLK 242	b	30	21.43
5204	SHORELINE-UW 370	b	36	10.61
5205	WOODINVILLE-UW 372E	b	30	14.08
5206	BELLEVUE-RENTON 240	b	36	36.49
5207	BELLEVUE-REDMOND 249	b	30	11.07
5208	BELLEVUE-REDMND 249R	b	32	11.07
5209	MERCER ISLAND 201	b	60	6.75
5210	MERCER IS-UW 205E	b	60	14.80
5213	LK CITY-BELLEVUE 243	b	60	16.90
5216	KIRKLND-TOTEM LK 231	b	60	24.64
5218	REDMOND-KENT 247	b	90	26.17
5219	BOTHELL-UW 372E	b	45	8.73
5220	SHOREWOOD-SEACBD 113	b	30	9.55
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	24	22.87
5223	KINGSGATE-UW 275	b	23	13.92
5224	OVERLKE-TOTEM LK 239	b	36	23.69
5225	SHRLNE-BELVU-BUR 340	b	30	81.19
5228	OVERLAKE-SEACBD 225E	b	50	33.75
5229	MERCER IS. VAN 204	b	30	3.83
5230	FACTRIA-NEWCASTL 206	b	120	5.23
5231	FACTRIA-EASTGATE 207	b	120	6.22
5232	LK KTHLN-I90-SEA 111	b	40	20.93
5233	FACTRIA-COUGR MT 208	b	120	9.63
5234	NBND-ISS P&R VAN 209	b	120	41.16
5235	SEA CBD-ISS P&R 215	b	30	19.83
5236	LK SERENE-SEACBD 405	b	25	21.54
5237	SWAMP CRK-BELVUE 407	b	36	17.98

5238	MTLK TER-SEA CBD 408	b	20	15.30
5239	MUKILTEO-SEATTLE 409	b	24	26.91
5241	ISS P&R-SEA CBD 215	b	90	18.38
5244	CBD-ALKI-ADM DST 37R	b	25	15.50
5247	BEAC HILL SHUTTLE 38	b	23	4.44
5248	ARBOR HTS-SEA 21E	b	23	12.91
5249	NGATE-WLNGFRD-SEA 16	b	25	21.96
5250	SWAMP CRK-SEACBD 430	b	30	22.74
5255	SNOHOM-MONR-SCBD 424	b	60	40.37
5285	DOCKTN-VASH-SEA 119X	b	120	27.42
5286	DOCKTON-VASH HTS 119	b	90	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	36	24.82
5292	N AUB-AUBURN VAN 185	b	45	6.06
5293	S AUB-AUBURN VAN 186	b	36	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	90	37.24
5296	4 FRDMS-NGTE VAN 318	b	45	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5300	LYNWOOD-WALNGFRD 840	b	180	10.21
5301	LYNNWOOD-UW 855ER	b	60	12.41
5302	EDMONDS-UW 875E	b	120	15.48
5303	EDMONDS-BOEING 147	b	90	14.87
5304	MTLK TERR-BOEING 157	b	90	13.77
5305	CANYON PK-BOEING 187	b	90	14.00
5307	ARLINGTON-BOEING 217	b	120	28.19
5308	BOEING-ARLINGTON 227	b	120	29.16
5311	AURORA VL-BOEING 617	b	120	13.71
5313	AURORA VL-BOEING 767	b	120	8.21
5314	SILVER LAKE-BOEING 3	b	90	9.87
5315	MUKILTEO-BOEING 25	b	60	3.93
5316	BRIER-LYNNWOOD 111	b	75	3.01
5317	EDMONDS-MUKILTEO 190	b	60	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5321	NBND-ISS-SEA CBD 214	b	90	36.62
5322	SEA CENTER-MADRONA 2	b	36	7.61
5323	FIRST HILL-SEACBD 12	b	60	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5325	SPU - S JACKSON 13	b	90	5.29
5326	S JACKSON - SPU 13	b	35	5.35
5327	BROADWAY-GEORGTWN 60	b	45	6.88
5328	BROADWAY-BOEING 60	b	90	10.51
5329	TAHLQUAH-VSH HTS 118	b	120	14.19
5330	BURTON-VASHN HTS 117	b	120	13.74
5332	KENT TC-RENTN TC 169	b	25	24.20
5333	M.C. EXPRESS 135R	b	30	7.53
5334	M.C. EXPRESS 135	b	22	8.12
5335	KENMORE-BELLEVUE 234	b	30	27.92
5336	RDMND-KRKLN-SEA 251R	b	45	28.02
5337	KENT-RENTON 153	b	30	18.56

5338	RCHMND BCH-NGATE 315	b	30	9.18
5341	RAI BCH-UW-LYLHT 48A	b	20	17.35
5342	COL CTY-UW-LYLHT 48B	b	90	13.15
5343	GRNWD-UW-RAIN BC 48F	b	120	15.31
5347	COLM PK-LSCHI-SEA 27	b	20	5.10
5348	SEA-LSCHI-COLM PK 27	b	25	5.07
5349	HOLLY PK-RANR-CBD 42	b	45	7.90
5350	RAINIER VIEW-CBD 42	b	90	10.07
5351	RAINIER VIEW-CBD 42R	b	30	10.29
5352	BRODVIEW-FRE-CBD 28R	b	30	12.57
5354	ALKI-SEATTLE CBD 56E	b	30	7.46
5356	ALKI-SEATTLE CBD 56R	b	30	7.41
5357	BEAR CK P&R-UW 276	b	45	13.75
5359	KINGSGATE-SEACBD 252	b	15	18.73
5360	REDMOND-SEACBD 266	b	20	18.58
5361	OVRLK-REDMND-ISS 269	b	20	43.89
5362	WDNVL-LKCTY-SEA 312	b	20	19.93
5363	KENMRE-LKCTY-SEA 312	b	45	13.78
5364	AURORA V EX 359XR	b	90	13.19
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5367	SHRWD-WHTCTR-CBD 20R	b	60	8.73
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	24	6.87
5372	NGATE-RCHMND BCH 315	b	36	9.18
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5377	MAPLEWOOD-RENTON 908	b	120	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.04
5380	ISSAQUAH-BELV-UW 271	b	15	37.42
5381	BELLEVUE TC-UW 271	b	45	20.66
5382	REDMOND-BEAR CR 291	b	25	8.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	45	10.57
5482	SHIL-BAL-FRE VN B 86	b	36	10.57
5484	UW-LAKECITY 65R	b	10	7.81
5485	UW-LK CITY-NGATE 75	b	90	9.81
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5487	ISS-SEA CBD 214	b	20	18.23
5488	W SEA-SEA CBD 57	b	30	7.65
5489	ADMRL-WSEA JCT VN 51	b	30	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5491	SEA CBD-TUK P&R 129	b	60	11.70
5492	DESMO-HIGH CC VN 189	b	90	9.82
6003	JAC PK-UW-SEACBD 73E	b	10	12.94
6013	KNGS-BTC-RED 230	b	24	43.94
6014	EDMONDS-SEA CBD 404	b	30	19.25
6016	EDMONDS-OVERLAKE 441	b	120	22.35
6017	EASTMONT-OVERLKE 442	b	120	23.48
6020	TCC-SR512-OLY 601X	b	60	22.60
6021	OLY-SR512 601X	b	120	10.76
6022	SR512-OLY 603X	b	120	11.06
6023	S.SOUND-TACOMA 605X	b	90	18.43

6027	GIG HAR-TCC-SEA 595X	b	60	45.14
6030	BELLEVUE-SEACBD 226	b	8	13.58
6034	BELLEVUE-SEACBD 226R	b	8	13.23
6039	WEDGEWOOD-SCBD 76X	b	10	7.98
6040	NORTHGATE-SEACBD 16E	b	23	10.27
6041	SEACBD-NORTHGTE 16ER	b	60	10.46
6042	BTC-Woodinville 237	b	20	9.97
6043	WOODINVILLE-BTC 237	b	24	9.91
6044	TWIN LK-FEDTC VN 187	b	90	9.54
6059	KENNYDALE-RENTON 105	b	30	10.32
6060	RENTON-SEATTLE 101	b	20	28.76
6061	KENT TC-SEA CBD 150	b	20	23.50
6062	MCMICKEN HTS-CBD 170	b	40	16.81
6063	FED WAY-STAC-SEA 174	b	20	47.16
6065	RENTON-SEA CBD 106	b	20	13.19
6066	RENTON-SEA CBD 106R	b	30	13.37
6067	RENTN-RANIER BCH 107	b	30	26.44
6068	S RENTON-SEATTLE 101	b	60	13.43
6070	FAIRWD-RENTN-SEA 101	b	60	21.55
6071	FAIRWOOD-RENTON 148	b	30	16.20
6072	AUB-KENT TC-SEA 150	b	30	53.58
6073	ENUMCLW-SEA CBD 152E	b	90	41.45
6074	AUBURN-SEA CBD 152E	b	36	26.79
6075	LK MERIDIAN-SEA 158	b	45	32.78
6076	TIMBERLANE-SEA 159	b	60	31.68
6077	GLENCARIN-SEA 160	b	20	30.14
6081	DASH PT - SEA 175E	b	60	28.58
6082	HGHLNE CC-KNT TC 166	b	30	12.92
6083	FEDRL WAY TC-SEA 177	b	15	22.94
6085	STAR LK - SEA 190	b	26	19.65
6086	KENT-SEATTLE CBD 162	b	45	22.95
6087	EAST HILL-CBD 163	b	22	20.82
6088	W.FED WY-SEACBD 178E	b	45	27.24
6091	TWIN LAKES EX 176	b	45	29.56
6092	PAC. HWY S EX 191	b	36	21.24
6093	AIRPORT-FED WAY 194	b	30	57.94
6094	S FED WY-SEA CBD 195	b	60	25.94
6095	S FED WY P&R-SEA 196	b	20	25.58
6096	FEDERAL WAY-UNIV 197	b	36	30.43
6097	BTC - REDMOND 233	b	36	7.89
6098	REDMOND-BELLVUE 232E	b	45	13.10
6099	REDMOND - BTC 233	b	23	17.04
6100	RCHMND BCH-SCBD 301	b	36	16.37
6101	SHORELINE-SEACBD 301	b	36	13.34
6103	RCHMND BCH-SCBD 304	b	36	17.14
6106	WDNVILLE-SEACBD 307E	b	30	21.58
6107	SEACBD-WDNVILLE 307E	b	18	22.55
6108	HRZN VW-SEA CBD 308E	b	60	15.69
6110	NOVLTY HLL-SCBD 311E	b	15	31.58
6113	KENMORE-SEA CBD 306E	b	45	16.96
6117	EDMNDS-NGTE-SCBD 317	b	30	19.26
6118	AURORA VIL-NGATE 302	b	36	15.98

6120	SCBD-NGTE-EDMND 317R	b	60	19.02
6121	LYNNWOOD PR-SEA 401E	b	16	16.49
6122	LYNNWOOD-SCBD 377E	b	45	19.02
6123	SCBD-LYNNWOOD 377ER	b	90	18.79
6125	N. LYNNWOOD-SEA 401E	b	18	19.55
6127	LYNNWOOD-NGATE 377	b	90	10.01
6132	EDMONDS-SEA CBD 403	b	25	21.69
6135	EASTGATE EXP 212E	b	20	11.12
6140	QUEEN ANNE EXP 2E	b	15	4.36
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6142	LOYAL HTS-SEACBD 18E	b	30	9.92
6144	RAINIER BCH-SCBD 36E	b	36	9.71
6146	NORTHGTE-SEACBD 41ER	b	90	10.92
6148	NORTHGATE-SEACBD 41E	b	8	9.73
6149	RAINIER VIEW-CBD 42X	b	36	10.07
6150	ISSQH-EASTGT-CBD 210	b	36	20.36
6156	SEA-FAUNT-WHTCTR 54R	b	30	10.95
6157	WHTCNTR-FAUNT-SEA 54	b	23	11.06
6162	OVRLK-156TH-CBD 229E	b	36	32.77
6168	CBD-OVRLK-LKWTCL 263	b	20	22.81
6172	KINGSGT-520-SCBD 255	b	15	20.42
6173	RDMND-OVRLK-BELV 253	b	30	21.32
6174	RDMND-KRKLN-CBD 254R	b	90	19.36
6176	RDMND-KRKLND-CBD 254	b	60	19.32
6177	KNGSGT-520-SCBD 255R	b	45	20.22
6181	KNGSGT-RSEHL-CBD 262	b	45	19.15
6182	OVERLAKE-SEACBD 256R	b	60	13.07
6184	REDMND-OVRLK-CBD 263	b	90	18.03
6186	LAKECITY-UW 65	b	10	7.81
6188	RCHMND BCH-SCBD 301R	b	90	13.30
6192	LKCTY-UW-SEA CBD 72E	b	10	12.56
6195	NOAA-SAND PT-UW 74	b	15	8.46
6197	NGATE-LK CITY-UW 75	b	45	9.81
6200	BURIEN-SEATTLE 136	b	90	11.58
6201	BURIEN-WTCTR-SEA 137	b	36	12.87
6202	BRIER-SEA CBD 477	b	26	19.33
6206	MERCR IS-SEA CBD 202	b	36	9.63
6208	SEA CBD-MERCR IS 202	b	90	10.04
6209	DES MOINES-SCBD 132E	b	36	19.24
6210	BURIEN-SEA CBD 132E	b	120	10.44
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04
6214	EDM-AUR VIL-LYN 630	b	60	27.04
6310	OVERLAKE-BOEING 965	b	25	26.97
6330	Auburn PR-Boeing 952	b	25	48.32
6335	Egate PR-Boeing 953	b	25	29.14
6340	Renton Boeing-Boeing	b	25	34.41
6555	TAC-SR512-OLY 603X	b	75	39.40
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	35	3.72

8002	SEATTLE-BREMERTON	f	50	34.00
8003	SEATTLE-WINSLOW	f	40	17.42
8004	EDMONDS-KINGSTON	f	40	12.00
8005	FAUNTLEROY-VASHON	f	30	7.00
8006	FAUNTLEROY-S.WORTH	f	90	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	20	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	30	46.98
CR1	Everett to Tacoma CR	r	30	158.16
CR2	Tacoma to Everett CR	r	45	90.16
D	Lynnwood-Bellevue	b	30	41.63
F	Issaquah-Ngate	b	15	47.58
G2	Redmond-SEA CBD	b	12.5	35.62
H	Bellevue-SeaTac	b	15	33.20
I	Redmond-UW	b	15	27.78
J	Fed Way-Bellevue	b	30	65.22
LR1	Roosevelt to Seatac	r	8	49.00
LR2	Roosevelt-I.Distr.	r	8	11.80
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	7.5	89.54
P	Lakewood-SEA CBD	b	7.5	87.53
t19	Tacoma to Auburn	b	12.5	44.76
t20	Puyallup to Lakewood	b	12.5	24.04
t21	Dupont to Puyallup	b	12.5	40.96
t24	Parkland to Tac CBD	b	12.5	12.92
t26	Dupont TacCBD I5	b	12.5	38.80

2020 No Action Off-Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	30	9.60
4002	W QU. ANNE-MADRONA 2	b	30	12.97
4003	QUEEN ANNE-MADRONA 3	b	60	15.12
4004	QU ANNE-JUDKINS PK 4	b	60	14.56
4005	NORTHGATE TC-UW 67	b	15	9.43
4006	RAINIER(HEND)-UW 7A	b	60	27.51
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	JUDKINS PK-SEA CBD 4	b	60	7.96
4009	CAP HILL-SEA CBD 12	b	30	8.37
4010	CAP HILL-SEA CBD 10	b	15	6.99
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	30	9.34
4014	SUMMIT-MT BAKER 14	b	30	12.77

4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	30	18.01
4020	QUEEN ANNE-1ST HLL 3	b	60	11.48
4023	1ST HILL-SEA CBD 3	b	90	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4031	RAINR(HEND)-BRDWY 7C	b	30	20.59
4032	S RAINIER BCH-UW 7D	b	60	30.47
4033	SEACBD-S RAIN BCH 7E	b	180	8.55
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4045	CAP HILL-MNTLK-UW 43	b	50	7.94
4047	UW-MONTLAKE-CBD 43	b	15	10.48
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.20
4063	HONEYWELL EXPRESS-WD	b	60	36.94
4099	WATERFRONT STCAR 99	b	20	3.66
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	100	33.06
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	60	28.26
4155	FACTORIA-BELLVUE 921	b	60	18.74
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	60	53.50
4160	WDNVL-KRKLND VAN 931	b	50	30.42
4161	FACT-NWCSTL DART 925	b	60	15.30
4163	N.BEND-RDMND VAN 929	b	105	64.50
4164	KC CRTHS-Y S CTR 944	b	30	1.09
4165	KENMR-KNGSGT VAN 935	b	60	12.40
4169	CRSSRDS-EGTE VAN 923	b	30	8.18
4183	POULSBO/BAINBRG X 90	b	60	30.16
4185	POULSBO-KINGS-SUQ 92	b	60	28.06
4204	BRANSONWOOD 4	b	60	8.86
4205	CEDAR HEIGHTS 5	b	60	5.82
4206	BETHEL 6	b	60	13.44
4207	SOUTH PARK 7	b	60	13.20
4210	CROSSTOWN EXP 11	b	40	12.56
4212	SILVERDALE WEST 12	b	40	15.08
4213	SILVERDALE LTD 13	b	60	15.00
4217	KITSP MALL LTD 17	b	40	17.58
4220	NAVY YARD CITY 20	b	40	8.18
4221	PERRY AVENUE 21	b	60	5.28
4222	PERRY AVENUE 21R	b	120	5.28

4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	60	9.18
4225	EAST PARK 25	b	40	10.78
4226	WEST PARK 26	b	60	8.02
4229	TRENTON AVENUE 29	b	60	6.10
4231	TRENTON AVENUE 29R	b	120	6.10
4232	POULSBO-SILVRDALE 32	b	60	19.44
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	60	3.58
4236	RIDGETOP SHUTTLE 36	b	60	3.73
4241	LINCOLN DRIVE 41	b	60	6.12
4242	FRONT STREET 42	b	60	1.89
4243	FRNT ST-VIKING WY 42	b	60	4.02
4286	SOUTHWORTH SHUTTL 86	b	40	24.90
4287	PURDY EXPRESS 87	b	150	25.50
5001	BEVERLY LANE 2	b	50	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5012	SILVER LAKE 20	b	50	28.82
5014	EVT CC-MUKILTEO 23	b	60	22.64
5016	PEACOCK HILL 112	b	60	15.38
5019	DARRNGTN-ARLNGTN 230	b	150	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	60	19.70
5024	LYNN-MTLKTER-EDM 140	b	60	15.84
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	60	10.56
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	UW-LYNNWOOD 850	b	120	14.95
5037	UW-EVERETT 860	b	120	23.98
5040	UW-EDMONDS 870	b	120	16.27
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	EDM CC-MAYS POND 150	b	180	13.28
5045	GRAN FALLS-EVRTT 280	b	60	33.56
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	60	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	8.28
5052	GRANDVIEW DRIVE 20	b	90	23.28
5053	PAC. AVE TO GRAHAM 4	b	60	41.52
5054	N ORCHARD 50	b	60	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	30	10.02
5059	M L KING JR WAY 26	b	30	5.92
5060	PORTLAND AVE 41A	b	60	13.22
5061	PORTLAND AVE 41	b	60	11.30
5062	MCKINLEY AVE 42	b	30	10.94

5064	YAKIMA 45	b	30	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	60	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.98
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	80	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	30	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	120	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	120	26.38
5086	PACIFIC AVE 46AR	b	120	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	38.28
5088	FEDERAL WAY 500	b	30	23.52
5090	PUYALUP-RIVER RD 400	b	120	20.64
5092	112TH STREET 410	b	60	32.12
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	30	13.53
5098	NORTH 30TH ST 13	b	50	13.01
5099	ORTING 403	b	180	21.58
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	30	20.45
5107	SUNSET HILL-CBD 17	b	30	17.31
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	30	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	30	24.85
5120	MAGNOLIA-SEA CBD 33	b	60	7.19
5126	MAGNOLIA-SEA CBD 33R	b	60	6.90
5127	RAIN BCH-SEA CBD 36	b	20	19.28
5128	LYLHT-UW-COL CTY 48B	b	30	26.30
5129	BEACON HL-SEA CBD 36	b	20	9.58
5133	LYLHT-UW-RAI BCH 48A	b	30	34.60
5140	GEORGTWN-BROADWAY 60	b	30	13.76
5141	NORTHGATE-UW 68	b	30	13.16
5143	ADM DST-ALKI-CBD 37	b	60	31.68
5148	ADMIRAL-CBD 55	b	30	15.99
5149	SEACBD-RB-S.CTR 39	b	30	35.89
5152	AURORA V EX 359X	b	30	26.30
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	60	24.42
5165	BURIEN-SEA CBD 132	b	60	28.17
5168	FAIRWOOD-STHCNTR 155	b	60	23.43

5169	RENTON CIRCULATR 110	b	15	8.34
5172	FED WAY-AUBURN 181	b	30	27.20
5180	DES MOINES-SEA 130E	b	60	38.25
5181	TIMBERLANE-KENT 168	b	60	21.87
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5197	KEY CENTER 113	b	60	17.90
5200	UW-SEATTLE CBD 70	b	15	10.93
5204	UW - SHORELINE 370	b	120	10.48
5205	WOODINVILLE-UW 372E	b	90	28.02
5206	BELLEVUE-RENTON 240	b	50	36.51
5207	BELLEVUE-REDMOND 249	b	60	22.14
5210	UW-MERCER IS 205E	b	180	14.34
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLVU TC 340	b	60	44.99
5225	SHRLNE-BELVU-BUR 340	b	60	85.29
5229	MERCER IS. VAN 204	b	30	11.17
5234	NBND-ISS P&R VAN 209	b	60	41.16
5235	SEA CBD-ISS P&R 215	b	30	36.76
5247	BEAC HILL SHUTTLE 38	b	20	4.44
5249	NGATE-WLNGFRD-SEA 16	b	30	21.96
5286	DOCKTON-VASH HTS 119	b	150	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	60	25.64
5292	N AUB-AUBURN VAN 185	b	60	6.06
5293	S AUB-AUBURN VAN 186	b	60	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	90	37.24
5296	4 FRDMS-NGTE VAN 318	b	30	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5301	LYNNWOOD-UW 855ER	b	120	15.85
5309	BOEING-STANWOOD 247	b	120	33.29
5312	BOEING-GOLDBAR 727	b	180	39.99
5317	EDMONDS-MUKILTEO 190	b	60	10.56
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5322	SEA CENTER-MADRONA 2	b	30	7.61
5323	FIRST HILL-SEACBD 12	b	30	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5329	TAHLQUAH-VSH HTS 118	b	180	28.38
5332	KENT TC-RENTN TC 169	b	30	23.40
5334	M.C. EXPRESS 135	b	30	22.91
5335	KENMORE-BELLEVUE 234	b	60	27.92
5338	RCHMND BCH-NGATE 315	b	30	18.36
5347	COLM PK-LSCHI-SEA 27	b	30	10.81
5350	RAINIER VIEW-CBD 42	b	30	21.01
5354	ALKI-SEATTLE CBD 56	b	30	14.82
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	30	6.87
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5374	MARINR PR-SEACBD 418	b	60	48.39

5375	MARINER P&R-UW 810	b	60	22.78
5376	UW-MARINER P&R 810	b	90	22.65
5377	MAPLEWOOD-RENTON 908	b	60	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.08
5380	ISSAQUAH-BELV-UW 271	b	30	37.42
5382	REDMOND-BEAR CR 291	b	50	8.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	35	10.57
5482	SHIL-BAL-FRE VN B 86	b	35	10.57
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5489	ADMRL-WSEA JCT VN 51	b	35	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5492	DESMO-HIGH CC VN 189	b	60	9.82
6003	JAC PK-UW-SEACBD 73E	b	15	12.94
6013	KNGS-BTC-RED 230	b	30	43.94
6024	TAC-SR512-OLY 620X	b	120	31.34
6030	BELLEVUE-SEACBD 226	b	12	26.79
6039	WEDGEWOOD-SCBD 76X	b	15	7.98
6044	TWIN LK-FEDWY TC 187	b	60	9.54
6059	KENNYDALE-RENTON 105	b	30	10.32
6060	RENTON-SEATTLE 101	b	30	28.76
6061	KENT TC-SEA CBD 150	b	180	39.26
6063	FED WAY-SEA 174	b	30	47.16
6065	RENTON-SEA CBD 106	b	30	26.56
6067	RENTN-RANIER BCH 107	b	30	26.44
6071	FAIRWOOD-RENTON 148	b	30	16.20
6072	AUB-KENT TC-SEA 150	b	30	53.58
6077	GLENCARIN-SEA 160	b	60	30.14
6082	HGHLNE CC-KNT TC 166	b	30	12.92
6093	AIRPORT-FED WAY 194	b	30	57.94
6099	REDMOND - BTC 233	b	60	16.79
6106	WDNVILLE-SEACBD 307E	b	30	45.23
6117	EDMONDS-NORTHGTE 317	b	30	20.30
6118	AURORA VIL-NGATE 302	b	30	15.98
6127	LYNNWOOD-NGATE 377	b	30	20.02
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6148	NORTHGATE-SEACBD 41E	b	30	21.75
6157	FAUNTLEROY-SEACBD 54	b	30	22.21
6165	RDMND-KRKLND-SEA 251	b	60	56.05
6172	KINGSGT-520-SCBD 255	b	60	40.64
6173	RDMND-OVRLK-BELV 253	b	30	21.32
6176	REDMOND-KIRKLAND 254	b	60	14.38
6186	LAKECITY-UW 65	b	20	15.62
6192	LKCTY-UW-SEA CBD 72E	b	15	12.56
6195	NOAA-SAND PT-UW 74	b	30	8.46
6200	BURIEN-SEATTLE 136	b	60	24.97
6201	BURIEN-WTCTR-SEA 137	b	60	27.55
6209	DES MOINES-SCBD 132E	b	60	38.07
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04

6214	EDM-AUR VIL-LYN 630	b	60	27.54
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	60	3.72
8002	SEATTLE-BREMERTON	f	90	34.00
8003	SEATTLE-WINSLOW	f	45	17.42
8004	EDMONDS-KINGSTON	f	43	12.00
8005	FAUNTLEROY-VASHON	f	40	7.00
8006	FAUNTLEROY-S.WORTH	f	360	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	30	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	60	50.98
D	Lynnwood-Bellevue	b	60	45.63
F	Issaquah-Ngate	b	30	47.62
G2	Redmond-SEA CBD	b	30	35.62
H	Bellevue-SeaTac	b	30	33.20
I	Redmond-UW	b	30	27.78
J	Fed Way-Bellevue	b	60	67.22
LR1	Roosevelt to Seatac	r	8	49.00
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	30	89.54
P	Lakewood-SEA CBD	b	30	87.53
t19	Tacoma to Auburn	b	30	44.76
t20	Puyallup to Lakewood	b	30	24.04
t21	Dupont to Puyallup	b	30	40.96
t24	Parkland to Tac CBD	b	30	12.92
t26	Dupont TacCBD I5	b	30	38.80

2020 Alternative 1 AM Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	12	10.22
4002	W QU. ANNE-MADRONA 2	b	20	12.97
4003	QUEEN ANNE-MADRONA 3	b	40	15.12
4004	QU ANNE-JUDKINS PK 4	b	40	14.56
4005	NORTHGATE TC-UW 67	b	10	9.43
4006	RAINR(HEND)-UW 7A	b	26	13.73
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	40	3.67
4009	CAP HILL-SEA CBD 12	b	15	8.37
4010	CAP HILL-SEA CBD 10	b	12	6.99
4011	MADISON PRK-FERRY 11	b	45	8.00
4012	MADRONA-SEA CBD 3	b	40	8.06
4013	SPU - SEATTLE CBD 13	b	8	2.71
4014	SUMMIT-MT BAKER 14	b	20	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	120	8.92
4017	WHITE CTR-SEACBD 20R	b	45	6.94
4018	SEATTLE CBD - SPU 13	b	8	2.64
4019	SUMMIT-SEACBD 14	b	50	6.11
4022	RAINR BCH-SEA CBD 7X	b	23	10.07
4023	1ST HILL-SEA CBD 3	b	60	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4029	UW-RAINR(HEND) 7AR	b	60	13.78
4031	RAINR(HEND)-BRDWY 7C	b	90	10.35
4032	S RAINIER BCH-UW 7D	b	90	15.21
4033	SEACBD-S RAIN BCH 7E	b	26	8.55
4034	UW-S RAINIER BCH 7F	b	30	15.26
4035	BRDWY-S RAINR BCH 7G	b	30	11.72
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4043	CBD-MONTLAKE-UW 43	b	14	5.19
4045	CAP HILL-MNTLK-UW 43	b	30	3.97
4047	UW-MONTLAKE-CBD 43	b	13	5.29
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.26
4063	HONEYWELL EXPRESS-WD	b	60	37.06

4098	FERRY TERM-SEACBD 98	b	45	1.56
4099	WATERFRONT STCAR 99	b	40	3.66
4103	WHITE CTR-SEA CBD 20	b	15	7.13
4120	WEST FED WAY VAN 901	b	15	8.27
4121	MAPLE VALLEY VAN 912	b	180	33.06
4150	YAR-EVGR-BTC VN 924B	b	10	10.91
4151	FACTRIA-NEWCSTL 219B	b	20	16.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	20	28.40
4155	FACTORIA-BELLVUE 921	b	20	17.80
4156	EVGR-YAR-BTC VN 924A	b	12	10.91
4157	FACTRIA-NEWCSTL 219A	b	10	16.77
4158	KENT DIAL-A-VAN 916	b	30	23.70
4159	ISSQH DIAL-A-VAN 927	b	24	53.50
4160	WDNVL-KRKLND VAN 931	b	20	30.10
4162	CRNATN-RDMND VAN 922	b	30	16.52
4163	DUVAL-N.BEND VAN 929	b	20	63.18
4164	KC CRTHS-Y S CTR 944	b	60	1.09
4165	KENMR-KNGSGT VAN 935	b	30	12.58
4169	CRSSRDS-EGTE VAN 923	b	10	8.68
4181	ANNAPOLIS COMUTER 81	b	75	7.03
4183	POULSBO/BAINBRG X 90	b	45	29.22
4184	KINGSTON/BAINBRDG 91	b	90	33.80
4186	POULSBO/KING-SUQ 92R	b	120	11.50
4187	POULSBO-BAINBR EX 90	b	30	14.59
4188	SUQM P&R/BAINBRDG 91	b	90	8.16
4193	MANZANITA 93	b	60	9.17
4194	AGATE POINT 94	b	60	10.29
4195	BATTLE POINT 95	b	60	9.98
4196	SUNRISE 96	b	60	10.34
4197	CRYSTAL SPRINGS 97	b	60	8.56
4198	FORT WARD 98	b	60	6.07
4199	BILL POINT 99	b	60	6.12
4204	BRANSONWOOD 4	b	90	8.86
4205	CEDAR HEIGHTS 5	b	30	6.46
4206	BETHEL 6	b	90	13.44
4207	SOUTH PARK 7	b	90	13.20
4210	CROSSTOWN EXP 11	b	50	12.56
4212	SILVERDALE WEST 12	b	60	15.08
4213	SILVERDALE LTD 13	b	90	15.00
4215	MCWILLIAMS-SHTTL 15	b	45	9.24
4216	BANGOR EXTENSION 13	b	120	23.48
4217	KITSP MALL LTD 17	b	75	17.66
4220	NAVY YARD CITY 20	b	50	8.18
4221	PERRY AVENUE 21	b	30	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	45	4.59
4225	EAST PARK 25	b	60	10.78
4226	WEST PARK 26	b	60	4.01
4227	OLYMPIC COLLEGE 24R	b	90	4.59
4228	WEST PARK 26R	b	90	4.01

4229	TRENTON AVENUE 29	b	60	6.10
4233	SILVRDL-BAINBRDGE 33	b	90	22.73
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	120	3.58
4236	RIDGETOP SHUTTLE 36	b	120	3.73
4237	SILVRDL-BAINBRDG 33R	b	120	23.31
4263	PT JEFFERSON CMTR 63	b	120	23.02
4266	HANSVILLE COMUTER 66	b	120	17.94
4285	MULLENIX EXPRESS 85	b	120	8.74
4286	SOUTHWORTH SHUTTL 86	b	60	24.90
4287	PURDY EXPRESS 87	b	120	25.50
4947	RNBCH-EVT BOEING 947	b	30	35.28
4948	BLLRD-EVT BOEING 948	b	30	27.58
4949	FEDWY-EVT BOEING 949	b	30	51.80
4950	W SEA-EVT BOEING 950	b	30	33.58
4951	ESTLK-EVT BOEING 951	b	30	25.48
4952	AUB-RN-EV BOEING 952	b	30	64.77
4954	REN-405-EV BOING 954	b	30	34.16
4965	OVRLK-EVT BOEING 965	b	30	31.63
4970	AUB-RENTN BOEING 970	b	30	34.31
5001	BEVERLY LANE 2	b	30	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5005	GLENWOOD-SEAHURST 8	b	60	8.86
5012	SILVER LAKE 20	b	30	28.82
5014	EVT CC-MUKILTEO 23	b	36	22.64
5016	PEACOCK HILL 112	b	60	15.38
5017	GIG HARBOR-TAC 102X	b	45	21.10
5019	DARRNGTN-ARLNGTN 230	b	90	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	30	12.66
5022	LYNNWOOD-BOTHELL 120	b	15	24.74
5024	LYNN-MTLKTER-EDM 140	b	30	18.80
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	30	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5040	EDMONDS-UW 870	b	30	10.74
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	10	16.33
5044	PUGET PK-MARN PR 760	b	60	3.15
5045	GRAN FALLS-EVRTT 280	b	36	35.40
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	30	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	10.64
5052	GRANDVIEW DRIVE 20	b	60	23.28
5053	PAC AVE TO GRAHAM 46	b	60	41.52
5054	N ORCHARD 50	b	40	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56

5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	15	10.02
5059	TIDEFLATS 60	b	45	9.05
5060	PORTLAND AVE 41A	b	90	6.61
5061	PORTLAND AVE 41	b	60	5.65
5062	MCKINLEY AVE 42	b	30	10.94
5063	PORTLAND AVE 41AR	b	30	6.61
5064	YAKIMA 45	b	25	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	35	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.52
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	60	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	15	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	50	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	90	26.38
5086	PACIFIC AVE 46AR	b	45	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	19.38
5088	FEDERAL WAY 500	b	30	22.98
5090	PUYALUP-RIVER RD 400	b	90	10.32
5091	FED WAY EXPRESS 501	b	60	11.43
5092	112TH STREET 410	b	60	32.12
5093	PUYALLUP-ENMCLW 406R	b	60	18.96
5094	BONNEY LK-ENMCLW 406	b	120	10.38
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	24	13.53
5098	NORTH 30TH ST 13	b	30	13.01
5100	GREENWOOD-SEA CBD 5X	b	30	6.81
5101	NGATE-GRNWD-SEACBD 5	b	30	13.42
5102	AURORA VIL-SEA CBD 6	b	20	14.83
5103	BROADVIEW-FREMNT 28E	b	26	12.56
5104	GRNWD-UW-COL CTY 48D	b	90	11.14
5105	COLCTY-UW-CWN PK 48E	b	45	8.58
5106	SUNSET HILL-CBD 17X	b	45	8.03
5107	SUNSET HILL-CBD 17	b	24	17.31
5108	W MAGNOLIA-CBD 19	b	45	7.55
5110	LYLHT-UW-HANF ST 48C	b	60	12.10
5111	RAIN BCH-SEA CBD 39	b	30	10.25
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	24	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72

5118	BROADVIEW-FRE-CBD 28	b	90	12.48
5120	MAGNOLIA-SEA CBD 33	b	20	7.19
5121	GRNLK-FREMNT-CBD 26X	b	36	7.19
5122	ADMRL DIST-BOEING 34	b	90	14.00
5123	HARBOR ISLAND 35	b	90	5.66
5124	ADM DST-ALKI-CBD 37E	b	36	16.78
5126	MAGNOLIA-SEA CBD 33R	b	30	7.99
5127	RAIN BCH-SEA CBD 36	b	30	19.28
5128	LYLHT-UW-COL CTY 48B	b	45	13.15
5129	BEACON HL-SEA CBD 36	b	15	9.58
5130	STNWD-MRYVL-SCBD 422	b	30	34.56
5131	BALLARD LOCKS-UW 46	b	45	5.26
5132	EVERETT-SEA CBD 420	b	60	12.46
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	30	14.98
5135	WTCTR-SSCC-BEACON 50	b	60	19.02
5136	FAUNTLEROY-SEA 54X	b	30	8.16
5137	CBD-ADMIRAL 55R	b	23	7.84
5138	LOYAL HEIGHTS-UW 48X	b	60	7.39
5139	RAIN BCH-SEA CBD 39X	b	60	9.07
5140	GEORGTWN-BROADWAY 60	b	26	6.88
5141	NORTHGATE-UW 68	b	15	13.16
5143	ADM DST-ALKI-CBD 37	b	90	15.41
5144	SEA CBD-RAIN BCH 39R	b	45	11.09
5146	WHITTIER HTS-CBD 28	b	25	7.52
5147	MARYSVIL-SEA CBD 421	b	30	15.78
5148	ADMIRAL-CBD 55	b	15	7.95
5149	SEACBD-RB-S.CTR 39R	b	90	17.48
5151	SHORLN CC-SEACBD 355	b	15	14.68
5152	AURORA V EX 359X	b	18	13.15
5154	BLUE RIDGE EX 15X	b	23	7.17
5156	MARINER PR-SCBD 411	b	10	2.73
5158	WEDGEWD-UW-BOEING 40	b	90	16.69
5159	BOE-MRNR PR-SCBD 411	b	10	8.52
5160	HILNDS-I90-SEA 114	b	36	8.51
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	30	12.18
5163	DES MOINES-SCBD 132	b	20	45.37
5164	BURIEN-SEA CBD 130R	b	60	20.47
5167	BOEING-AUBURN 154	b	20	22.82
5168	FAIRWOOD-STHCNTR 155	b	30	14.25
5169	RENTON CIRCULATR 110	b	15	14.26
5171	FAUNTLEROY-SEA 116X	b	26	9.69
5172	FED WAY-AUBURN 181	b	30	27.20
5173	BURIEN-SEATTLE 136R	b	45	11.75
5174	BURIEN-WCTR-SEA 137R	b	60	13.04
5175	RENTN-BOEING IND 108	b	40	11.59
5176	BLK DIA-RENT-SEA 143	b	20	46.96
5178	SEA-FAUNTLEROY 116R	b	120	9.88
5179	BURTON-VASHN HTS 118	b	60	10.21
5180	DES MOINES-SEA 130E	b	45	19.33
5181	TIMBERLANE-KENT 168	b	30	21.87

5182	BURIEN P&R-UW 133X	b	60	16.82
5183	AMBAUM EXPRESS 136E	b	60	11.26
5184	BURIEN-509-CBD 137E	b	45	11.52
5185	TAHLQH-VASH-SEA 118X	b	120	27.41
5187	BOEING-FEDWAY 173	b	30	20.78
5188	VASH HTS-TAHLQUH 118	b	60	16.30
5189	SHOREWOOD-SCBD 113R	b	60	9.29
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5193	GREENWOOD-SEA CBD 5	b	90	6.77
5196	VASH HTS-BURTON 118	b	120	12.32
5197	KEY CENTER 113	b	45	17.90
5200	UW-SEATTLE CBD 70	b	10	10.93
5202	AURORA V-SEACBD 360E	b	40	12.71
5206	BELLEVUE-RENTON 240	b	12	47.65
5207	BELLEVUE-REDMOND 249	b	15	11.07
5208	BELLEVUE-REDMND 249R	b	12	11.07
5209	MERCER ISLAND 201	b	30	6.75
5210	MERCER IS-UW 205E	b	30	6.94
5216	KIRKLND-TOTEM LK 231	b	15	25.76
5218	REDMOND-KENT 247	b	60	26.25
5219	BOTHELL-UW 372E	b	24	8.73
5220	SHOREWOOD-SEACBD 113	b	30	9.55
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	24	7.76
5224	OVERLKE-TOTEM LK 239	b	20	23.79
5225	SHRLNE-BELVU-BUR 340	b	30	19.68
5228	OVERLAKE-SEACBD 225E	b	25	11.50
5229	MERCER IS. VAN 204	b	15	3.83
5231	FACTRIA-EASTGATE 207	b	20	12.84
5232	LK KTHLN-I90-SEA 111	b	10	15.18
5233	FACTRIA-COUGR MT 208	b	20	12.98
5234	NBND-ISS P&R VAN 209	b	20	41.16
5235	SEA CBD-ISS P&R 215	b	8	6.71
5236	LK SERENE-SEACBD 405	b	20	13.18
5239	MUKILTEO-SEATTLE 409	b	10	21.40
5244	CBD-ALKI-ADM DST 37R	b	25	15.50
5247	BEAC HILL SHUTTLE 38	b	23	4.44
5248	ARBOR HTS-SEA 21E	b	23	12.91
5249	NGATE-WLNGFRD-SEA 16	b	12	21.96
5255	SNOHOM-MONR-SCBD 424	b	60	27.29
5285	DOCKTN-VASH-SEA 119X	b	120	27.42
5286	DOCKTON-VASH HTS 119	b	90	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	30	26.68
5292	N AUB-AUBURN VAN 185	b	45	6.06
5293	S AUB-AUBURN VAN 186	b	36	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	20	37.32
5296	4 FRDMS-NGTE VAN 318	b	45	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5302	EDMONDS-UW 875E	b	30	10.74
5303	EDMONDS-BOEING 147	b	40	14.87

5304	MTLK TERR-BOEING 157	b	40	13.77
5305	CANYON PK-BOEING 187	b	40	14.02
5307	ARLINGTON-BOEING 217	b	120	28.19
5308	BOEING-ARLINGTON 227	b	120	29.16
5311	AURORA VL-BOEING 617	b	120	13.71
5313	AURORA VL-BOEING 767	b	120	8.21
5314	SILVER LAKE-BOEING 3	b	90	9.87
5315	MUKILTEO-BOEING 25	b	60	3.93
5316	BRIER-LYNNWOOD 111	b	30	6.02
5317	EDMONDS-MUKILTEO 190	b	30	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	15	13.93
5320	GREEN RV CC-KENT 164	b	30	16.57
5321	NBND-ISS-SEA CBD 214	b	20	20.81
5322	SEA CENTER-MADRONA 2	b	60	7.61
5323	FIRST HILL-SEACBD 12	b	60	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5325	SPU - S JACKSON 13	b	30	5.29
5326	S JACKSON - SPU 13	b	30	5.35
5327	BROADWAY-GEORGTWN 60	b	45	6.88
5328	BROADWAY-BOEING 60	b	90	10.51
5329	TAHLQUAH-VSH HTS 118	b	120	14.19
5330	BURTON-VASHN HTS 117	b	120	13.74
5332	KENT TC-RENTN TC 169	b	10	24.28
5333	M.C. EXPRESS 135R	b	30	7.53
5334	M.C. EXPRESS 135	b	22	8.12
5335	KENMORE-BELLEVUE 234	b	10	27.94
5337	KENT-RENTON 153	b	20	19.60
5338	RCHMND BCH-NGATE 315	b	15	9.68
5341	RAI BCH-UW-LYLHT 48A	b	20	17.35
5342	COL CTY-UW-LYLHT 48B	b	90	13.15
5343	GRNWD-UW-RAIN BC 48F	b	120	15.31
5347	COLM PK-LSCHI-SEA 27	b	20	5.10
5348	SEA-LSCHI-COLM PK 27	b	25	5.07
5349	HOLLY PK-RANR-CBD 42	b	45	7.90
5350	RAINIER VIEW-CBD 42	b	90	10.07
5351	RAINIER VIEW-CBD 42R	b	30	10.29
5352	BRODVIEW-FRE-CBD 28R	b	30	12.57
5354	ALKI-SEATTLE CBD 56E	b	30	7.46
5356	ALKI-SEATTLE CBD 56R	b	30	7.41
5361	OVRLK-REDMND-ISS 269	b	20	45.87
5362	WDNVL-LKCTY-SEA 312	b	10	20.54
5364	AURORA V EX 359XR	b	60	13.19
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5367	SHRWD-WHTCTR-CBD 20R	b	60	8.73
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	24	6.87
5372	NGATE-RCHMND BCH 315	b	15	9.68
5373	ISSAQUAH CIRCLTR 200	b	15	7.38
5375	MARINER P&R-UW 810	b	30	12.80
5376	UW-MARINER P&R 810	b	30	12.80
5377	MAPLEWOOD-RENTON 908	b	30	27.65

5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.50
5381	BELLEVUE TC-UW 271	b	10	36.84
5382	REDMOND-BEAR CR 291	b	15	20.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	45	10.57
5482	SHIL-BAL-FRE VN B 86	b	36	10.57
5484	UW-LAKECITY 65R	b	10	7.81
5485	UW-LK CITY-NGATE 75	b	30	9.81
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5488	W SEA-SEA CBD 57	b	30	7.65
5489	ADMRL-WSEA JCT VN 51	b	30	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5491	SEA CBD-TUK P&R 129	b	30	11.70
5492	DESMO-HIGH CC VN 189	b	30	10.44
6003	JAC PK-UW-SEACBD 73E	b	10	12.94
6013	KNGS-BTC-RED 230	b	10	45.36
6014	EDMONDS-SEA CBD 404	b	30	4.30
6017	EASTMONT-OVERLKE 442	b	30	18.02
6020	TCC-SR512-OLY 601X	b	60	22.60
6021	OLY-SR512 601X	b	120	10.76
6022	SR512-OLY 603X	b	120	11.06
6023	S.SOUND-TACOMA 605X	b	90	18.43
6027	GIG HAR-TCC-SEA 595X	b	60	45.14
6039	WEDGEWOOD-SCBD 76X	b	10	7.98
6044	TWIN LK-FEDTC VN 187	b	90	9.54
6059	KENNYDALE-RENTON 105	b	10	13.02
6062	MCMICKEN HTS-CBD 170	b	30	16.81
6063	FED WAY-STAC-SEA 174	b	15	47.16
6065	RENTON-SEA CBD 106	b	15	13.21
6066	RENTON-SEA CBD 106R	b	30	13.39
6067	RENTN-RANIER BCH 107	b	20	26.48
6070	FAIRWD-RENTN-SEA 101	b	10	27.20
6071	FAIRWOOD-RENTON 148	b	20	16.20
6072	AUB-KENT TC-SEA 150	b	15	37.62
6073	ENUMCLW-SEA CBD 152E	b	20	45.08
6074	AUBURN-SEA CBD 152E	b	20	15.76
6075	LK MERIDIAN-SEA 158	b	20	23.43
6076	TIMBERLANE-SEA 159	b	30	28.30
6077	GLENCARIN-SEA 160	b	15	30.14
6082	HGHLNE CC-KNT TC 166	b	15	13.92
6087	EAST HILL-CBD 163	b	15	13.23
6088	W.FED WY-SEACBD 178E	b	30	7.48
6091	TWIN LAKES EX 176	b	30	11.80
6093	AIRPORT-FED WAY 194	b	30	5.36
6097	BTC - REDMOND 233	b	36	7.89
6098	REDMOND-BELLVUE 232E	b	30	9.72
6099	REDMOND - BTC 233	b	23	17.04
6100	RCHMND BCH-SCBD 301	b	15	8.66
6103	RCHMND BCH-SCBD 304	b	20	11.50
6106	WDNVILLE-SEACBD 307E	b	10	25.80
6107	SEACBD-WDNVILLE 307E	b	15	21.95

6108	HRZN VW-SEA CBD 308E	b	30	10.60
6110	NOVLTY HLL-SCBD 311E	b	10	31.32
6113	KENMORE-SEA CBD 306E	b	12	15.30
6117	EDMNDS-NGTE-SCBD 317	b	15	10.25
6118	AURORA VIL-NGATE 302	b	20	15.98
6120	SCBD-NGTE-EDMND 317R	b	15	10.05
6122	LYNNWOOD-SCBD 377E	b	30	10.01
6123	SCBD-LYNNWOOD 377ER	b	30	10.01
6125	N. LYNNWOOD-SEA 401E	b	10	6.40
6127	LYNNWOOD-NGATE 377	b	30	10.01
6132	EDMONDS-SEA CBD 403	b	25	5.20
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6142	LOYAL HTS-SEACBD 18E	b	30	9.92
6144	RAINIER BCH-SCBD 36E	b	36	9.71
6149	RAINIER VIEW-CBD 42X	b	36	10.07
6150	ISSQH-EASTGT-CBD 210	b	15	20.32
6156	SEA-FAUNT-WHTCTR 54R	b	30	10.95
6157	WHTCNTR-FAUNT-SEA 54	b	23	11.06
6162	OVRLK-156TH-CBD 229E	b	30	10.52
6165	RDMND-KRKLND-SEA 251	b	10	38.44
6172	KINGSGT-520-SCBD 255	b	10	21.69
6173	RDMND-OVRLK-BELV 253	b	10	21.40
6176	RDMND-KRKLND-CBD 254	b	10	14.98
6181	KNGSGT-RSEHL-CBD 262	b	30	18.92
6186	LAKECITY-UW 65	b	10	7.81
6192	LKCTY-UW-SEA CBD 72E	b	10	12.56
6195	NOAA-SAND PT-UW 74	b	15	8.46
6197	NGATE-LK CITY-UW 75	b	30	9.81
6200	BURIEN-SEATTLE 136	b	90	11.58
6201	BURIEN-WTCTR-SEA 137	b	36	12.87
6202	BRIER-SEA CBD 477	b	26	4.48
6206	MERCR IS-SEA CBD 202	b	15	3.17
6208	SEA CBD-MERCR IS 202	b	15	3.17
6209	DES MOINES-SCBD 132E	b	36	19.24
6210	BURIEN-SEA CBD 132E	b	120	10.44
6211	EVRTT-AURORA VIL 610	b	30	37.56
6212	EVRTT-AURORA VIL 620	b	60	48.46
6213	EVRTT-AURORA VIL 621	b	60	47.60
6214	EDM-AUR VIL-LYN 630	b	30	6.54
6310	OVERLAKE-BOEING 965	b	25	26.95
6330	Auburn PR-Boeing 952	b	25	48.34
6335	Egate PR-Boeing 953	b	25	29.12
6340	Renton Boeing-Boeing	b	25	34.39
6555	TAC-SR512-OLY 603X	b	75	39.40
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
8001	S.VASHON - PT. DEF	f	35	3.72
8002	SEATTLE-BREMERTON	f	50	34.00
8003	SEATTLE-WINSLOW	f	40	17.42
8004	EDMONDS-KINGSTON	f	40	12.00
8005	FAUNTLEROY-VASHON	f	30	7.00
8006	FAUNTLEROY-S.WORTH	f	90	10.00
8007	VASHON-S.WORTH	f	60	4.00

8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	20	3.60
A	Everett-Northgate	b	15	26.10
B1	Everett-SEA CBD	b	15	22.96
CR1	Everett to Tacoma CR	r	30	158.16
CR2	Tacoma to Everett CR	r	45	90.16
I	Redmond-UW	b	10	27.78
J	Fed Way-Bellevue	b	30	45.20
LR1	164th to Tacoma LR	r	8	113.12
LR2	Ngate to Des Moines	r	8	57.04
LR3	Ngate-Redmond (I-90)	r	8	55.96
LR4	Lynwd-T.Lake (I-90)	r	8	79.46
LR5	Lynwd-Seatac (I-405)	r	8	85.66
LR6	Issaq-Factoria (I90)	r	8	11.26
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	7.5	89.54
P	Lakewood-SEA CBD	b	7.5	87.53
t19	Tacoma to Auburn	b	12.5	44.76
t20	Puyallup to Lakewood	b	12.5	24.04
t21	Dupont to Puyallup	b	12.5	40.96
t24	Parkland to Tac CBD	b	12.5	12.92
t26	Dupont TacCBD I5	b	12.5	38.80

2020 Alternative 1 Off-Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	30	10.22
4002	W QU. ANNE-MADRONA 2	b	30	12.97
4003	QUEEN ANNE-MADRONA 3	b	40	15.12
4004	QU ANNE-JUDKINS PK 4	b	40	14.56
4005	NORTHGATE TC-UW 67	b	15	9.43
4006	RAINIER(HEND)-UW 7A	b	60	27.51
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	40	3.67
4009	CAP HILL-SEA CBD 12	b	30	8.37
4010	CAP HILL-SEA CBD 10	b	15	6.99
4012	MADRONA-SEA CBD 3	b	40	8.06
4013	SPU - SEATTLE CBD 13	b	15	2.71
4014	SUMMIT-MT BAKER 14	b	30	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	30	18.01
4023	1ST HILL-SEA CBD 3	b	60	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4031	RAINR(HEND)-BRDWY 7C	b	30	20.59
4032	S RAINIER BCH-UW 7D	b	60	30.47
4033	SEACBD-S RAIN BCH 7E	b	180	8.55
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80

4040	BALLARD-UW-MONTLK 44	b	10	10.29
4045	CAP HILL-MNTLK-UW 43	b	50	7.94
4047	UW-MONTLAKE-CBD 43	b	15	10.48
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.20
4063	HONEYWELL EXPRESS-WD	b	60	36.94
4099	WATERFRONT STCAR 99	b	20	3.66
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	100	33.06
4150	YAR-EVGR-BTC VN 924B	b	30	10.91
4151	FACTRIA-NEWCSTL 219B	b	30	16.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	40	28.40
4155	FACTORIA-BELLVUE 921	b	30	17.80
4156	EVGR-YAR-BTC VN 924A	b	30	10.91
4157	FACTRIA-NEWCSTL 219A	b	30	16.77
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	40	53.50
4160	WDNVL-KRKLND VAN 931	b	40	30.12
4162	CRNATN-RDMND VAN 922	b	60	16.52
4163	DUVAL-N.BEND VAN 929	b	40	63.18
4164	KC CRTHS-Y S CTR 944	b	30	1.09
4165	KENMR-KNGSGT VAN 935	b	40	12.58
4169	CRSSRDS-EGTE VAN 923	b	40	8.68
4183	POULSBO/BAINBRG X 90	b	60	30.16
4185	POULSBO-KINGS-SUQ 92	b	60	28.06
4204	BRANSONWOOD 4	b	60	8.86
4205	CEDAR HEIGHTS 5	b	60	5.82
4206	BETHEL 6	b	60	13.44
4207	SOUTH PARK 7	b	60	13.20
4210	CROSSTOWN EXP 11	b	40	12.56
4212	SILVERDALE WEST 12	b	40	15.08
4213	SILVERDALE LTD 13	b	60	15.00
4217	KITSP MALL LTD 17	b	40	17.58
4220	NAVY YARD CITY 20	b	40	8.18
4221	PERRY AVENUE 21	b	60	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	60	9.18
4225	EAST PARK 25	b	40	10.78
4226	WEST PARK 26	b	60	8.02
4229	TRENTON AVENUE 29	b	60	6.10

4231	TRENTON AVENUE 29R	b	120	6.10
4232	POULSBO-SILVRDALE 32	b	60	19.44
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	60	3.58
4236	RIDGETOP SHUTTLE 36	b	60	3.73
4241	LINCOLN DRIVE 41	b	60	6.12
4242	FRONT STREET 42	b	60	1.89
4243	FRNT ST-VIKING WY 42	b	60	4.02
4286	SOUTHWORTH SHUTTL 86	b	40	24.90
4287	PURDY EXPRESS 87	b	150	25.50
5001	BEVERLY LANE 2	b	50	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5012	SILVER LAKE 20	b	50	28.82
5014	EVT CC-MUKILTEO 23	b	60	22.64
5016	PEACOCK HILL 112	b	60	15.38
5019	DARRNGTN-ARLNGTN 230	b	150	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	40	24.74
5024	LYNN-MTLKTER-EDM 140	b	60	18.80
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	60	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5040	EDMONDS-UW 870	b	30	10.74
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	20	16.35
5045	GRAN FALLS-EVRTT 280	b	60	33.56
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	60	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	8.28
5052	GRANDVIEW DRIVE 20	b	90	23.28
5053	PAC. AVE TO GRAHAM 4	b	60	41.52
5054	N ORCHARD 50	b	60	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	30	10.02
5059	M L KING JR WAY 26	b	30	5.92
5060	PORTLAND AVE 41A	b	60	13.22
5061	PORTLAND AVE 41	b	60	11.30
5062	MCKINLEY AVE 42	b	30	10.94
5064	YAKIMA 45	b	30	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	60	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.98

5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	80	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	30	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	120	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	120	26.38
5086	PACIFIC AVE 46AR	b	120	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	38.28
5088	FEDERAL WAY 500	b	30	23.52
5090	PUYALUP-RIVER RD 400	b	120	20.64
5092	112TH STREET 410	b	60	32.12
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	30	13.53
5098	NORTH 30TH ST 13	b	50	13.01
5099	ORTING 403	b	180	21.58
5101	NGATE-GRNWD-SEACBD 5	b	30	13.42
5102	AURORA VIL-SEA CBD 6	b	30	14.83
5107	SUNSET HILL-CBD 17	b	30	17.31
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	30	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	30	24.85
5120	MAGNOLIA-SEA CBD 33	b	60	7.19
5126	MAGNOLIA-SEA CBD 33R	b	60	6.90
5127	RAIN BCH-SEA CBD 36	b	20	19.28
5128	LYLHT-UW-COL CTY 48B	b	30	13.15
5129	BEACON HL-SEA CBD 36	b	20	9.58
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	30	14.98
5140	GEORGTWN-BROADWAY 60	b	30	13.76
5141	NORTHGATE-UW 68	b	30	13.16
5143	ADM DST-ALKI-CBD 37	b	60	31.68
5148	ADMIRAL-CBD 55	b	30	15.99
5149	SEACBD-RB-S.CTR 39	b	30	35.89
5151	SHORLN CC-SEACBD 355	b	30	14.68
5152	AURORA V EX 359X	b	30	26.30
5156	MARINER PR-SCBD 411	b	60	2.73
5159	BOE-MRNR PR-SCBD 411	b	60	8.52
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	60	24.42
5163	DES MOINES-SCBD 132	b	40	45.37
5168	FAIRWOOD-STHCNTR 155	b	60	23.47
5169	RENTON CIRCULATR 110	b	40	14.26
5172	FED WAY-AUBURN 181	b	30	27.20
5176	BLK DIA-RENT-SEA 143	b	40	46.96

5180	DES MOINES-SEA 130E	b	60	38.25
5181	TIMBERLANE-KENT 168	b	60	21.87
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5197	KEY CENTER 113	b	60	17.90
5200	UW-SEATTLE CBD 70	b	15	10.93
5206	BELLEVUE-RENTON 240	b	15	47.65
5207	BELLEVUE-REDMOND 249	b	40	11.07
5210	UW-MERCER IS 205E	b	60	3.47
5216	KIRKLND-TOTEM LK 231	b	40	25.80
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	15	7.76
5224	OVERLKE-TOTEM LK 239	b	30	23.79
5225	SHRLNE-BELVU-BUR 340	b	30	19.68
5229	MERCER IS. VAN 204	b	30	11.17
5231	FACTRIA-EASTGATE 207	b	30	12.84
5232	LK KTHLN-I90-SEA 111	b	40	15.18
5233	FACTRIA-COUGR MT 208	b	60	12.98
5234	NBND-ISS P&R VAN 209	b	40	41.62
5235	Factoria-ISS P&R 215	b	30	18.38
5236	LK SERENE-SEACBD 405	b	60	13.18
5239	MUKILTEO-SEATTLE 409	b	30	21.40
5247	BEAC HILL SHUTTLE 38	b	20	4.44
5249	NGATE-WLNGFRD-SEA 16	b	30	21.96
5286	DOCKTON-VASH HTS 119	b	150	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	60	26.68
5292	N AUB-AUBURN VAN 185	b	60	6.06
5293	S AUB-AUBURN VAN 186	b	60	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	60	37.32
5296	4 FRDMS-NGTE VAN 318	b	30	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5302	EDMONDS-UW 875E	b	60	10.74
5309	BOEING-STANWOOD 247	b	120	33.29
5312	BOEING-GOLDBAR 727	b	180	39.99
5316	BRIER-LYNNWOOD 111	b	60	6.02
5317	EDMONDS-MUKILTEO 190	b	60	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	15	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5322	SEA CENTER-MADRONA 2	b	30	7.61
5323	FIRST HILL-SEACBD 12	b	30	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5329	TAHLQUAH-VSH HTS 118	b	180	28.38
5332	KENT TC-RENTN TC 169	b	30	23.48
5334	M.C. EXPRESS 135	b	30	22.91
5335	KENMORE-BELLEVUE 234	b	30	27.94
5337	KENT-RENTON 153	b	60	19.60
5338	RCHMND BCH-NGATE 315	b	30	9.68
5347	COLM PK-LSCHI-SEA 27	b	30	10.81
5350	RAINIER VIEW-CBD 42	b	30	21.01
5354	ALKI-SEATTLE CBD 56	b	30	14.82

5361	OVRLK-REDMND-ISS 269	b	20	45.87
5362	WDNVL-LKCTY-SEA 312	b	15	20.54
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	30	6.87
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5375	MARINER P&R-UW 810	b	30	12.80
5376	UW-MARINER P&R 810	b	30	12.80
5377	MAPLEWOOD-RENTON 908	b	40	27.65
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	40	29.50
5381	BELLEVUE TC-UW 271	b	10	36.84
5382	REDMOND-BEAR CR 291	b	40	20.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	35	10.57
5482	SHIL-BAL-FRE VN B 86	b	35	10.57
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5489	ADMRL-WSEA JCT VN 51	b	35	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5492	DESMO-HIGH CC VN 189	b	60	10.44
6003	JAC PK-UW-SEACBD 73E	b	15	12.94
6013	KNGS-BTC-RED 230	b	15	45.36
6017	EASTMONT-OVERLKE 442	b	30	18.02
6024	TAC-SR512-OLY 620X	b	120	31.34
6039	WEDGEWOOD-SCBD 76X	b	15	7.98
6044	TWIN LK-FEDWY TC 187	b	60	9.54
6059	KENNYDALE-RENTON 105	b	40	13.02
6063	FED WAY-STAC-SEA 174	b	15	47.16
6065	RENTON-SEA CBD 106	b	30	26.60
6067	RENTN-RANIER BCH 107	b	30	26.48
6070	FAIRWD-RENTN-SEA 101	b	30	27.20
6071	FAIRWOOD-RENTON 148	b	40	16.24
6072	AUB-KENT TC-SEA 150	b	8	37.62
6073	ENUMCLW-SEA CBD 152E	b	60	45.08
6074	AUBURN-SEA CBD 152E	b	60	15.76
6075	LK MERIDIAN-SEA 158	b	60	23.43
6076	TIMBERLANE-SEA 159	b	60	28.30
6077	GLENCARIN-SEA 160	b	40	30.14
6082	HGHLNE CC-KNT TC 166	b	20	13.92
6088	W.FED WY-SEACBD 178E	b	60	7.48
6091	TWIN LAKES EX 176	b	60	11.80
6093	AIRPORT-FED WAY 194	b	30	5.36
6098	REDMOND-BELLVUE 232E	b	60	9.72
6099	REDMOND - BTC 233	b	60	16.79
6100	RCHMND BCH-SCBD 301	b	30	8.66
6103	RCHMND BCH-SCBD 304	b	60	11.50
6106	WDNVILLE-SEACBD 307E	b	15	25.80
6108	HRZN VW-SEA CBD 308E	b	60	10.60
6110	NOVLTY HLL-SCBD 311E	b	40	31.32
6117	EDMNDS-NGTE-SCBD 317	b	30	10.25
6118	AURORA VIL-NGATE 302	b	30	15.98
6125	N. LYNNWOOD-SEA 401E	b	30	6.40

6127	LYNNWOOD-NGATE 377	b	30	10.01
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6157	FAUNTLEROY-SEACBD 54	b	30	22.21
6165	RDMND-KRKLND-SEA 251	b	20	38.44
6172	KINGSGT-520-SCBD 255	b	40	21.80
6173	RDMND-OVRLK-BELV 253	b	30	21.40
6176	RDMND-KRKLND-CBD 254	b	40	14.98
6181	KNGSGT-RSEHL-CBD 262	b	40	18.92
6186	LAKECITY-UW 65	b	20	7.81
6192	LKCTY-UW-SEA CBD 72E	b	15	12.56
6195	NOAA-SAND PT-UW 74	b	30	8.46
6200	BURIEN-SEATTLE 136	b	60	24.97
6201	BURIEN-WTCTR-SEA 137	b	60	27.55
6209	DES MOINES-SCBD 132E	b	60	38.07
6211	EVRTT-AURORA VIL 610	b	30	37.56
6212	EVRTT-AURORA VIL 620	b	60	48.46
6213	EVRTT-AURORA VIL 621	b	60	47.60
6214	EDM-AUR VIL-LYN 630	b	60	6.54
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
8001	S.VASHON - PT. DEF	f	60	3.72
8002	SEATTLE-BREMERTON	f	90	34.00
8003	SEATTLE-WINSLOW	f	45	17.42
8004	EDMONDS-KINGSTON	f	43	12.00
8005	FAUNTLEROY-VASHON	f	40	7.00
8006	FAUNTLEROY-S.WORTH	f	360	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	30	3.60
A	Everett-Northgate	b	15	26.10
B1	Everett-SEA CBD	b	15	22.96
I	Redmond-UW	b	20	27.78
J	Fed Way-Bellevue	b	30	45.20
LR1	164th to Tacoma LR	r	8	113.12
LR3	Ngate-Redmond (I-90)	r	8	55.96
LR5	Lynwd-Seatac (I-405)	r	8	85.66
LR6	Issaq-Factoria (I90)	r	8	11.26
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	30	89.54
P	Lakewood-SEA CBD	b	30	87.53
t19	Tacoma to Auburn	b	30	44.76
t20	Puyallup to Lakewood	b	30	24.04
t21	Dupont to Puyallup	b	30	40.96
t24	Parkland to Tac CBD	b	30	12.92
t26	Dupont TacCBD I5	b	30	38.80

2020 Alternative 2 AM Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	12	10.22
4002	W QU. ANNE-MADRONA 2	b	20	12.97
4003	QUEEN ANNE-MADRONA 3	b	40	15.12
4004	QU ANNE-JUDKINS PK 4	b	40	14.56
4005	NORTHGATE TC-UW 67	b	10	9.43
4006	RAINR(HEND)-UW 7A	b	26	13.73
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	40	3.67
4009	CAP HILL-SEA CBD 12	b	15	8.37
4010	CAP HILL-SEA CBD 10	b	12	6.99
4011	MADISON PRK-FERRY 11	b	45	8.00
4012	MADRONA-SEA CBD 3	b	40	8.06
4013	SPU - SEATTLE CBD 13	b	8	2.71
4014	SUMMIT-MT BAKER 14	b	20	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	120	8.92
4017	WHITE CTR-SEACBD 20R	b	45	6.94
4018	SEATTLE CBD - SPU 13	b	8	2.64
4019	SUMMIT-SEACBD 14	b	50	6.11
4022	RAINR BCH-SEA CBD 7X	b	23	10.07
4023	1ST HILL-SEA CBD 3	b	60	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4029	UW-RAINR(HEND) 7AR	b	60	13.78
4031	RAINR(HEND)-BRDWY 7C	b	90	10.35
4032	S RAINIER BCH-UW 7D	b	90	15.21
4033	SEACBD-S RAIN BCH 7E	b	26	8.55
4034	UW-S RAINIER BCH 7F	b	30	15.26
4035	BRDWY-S RAINR BCH 7G	b	30	11.72
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4043	CBD-MONTLAKE-UW 43	b	14	5.19
4045	CAP HILL-MNTLK-UW 43	b	30	3.97
4047	UW-MONTLAKE-CBD 43	b	13	5.29
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.26
4063	HONEYWELL EXPRESS-WD	b	60	37.06

4098	FERRY TERM-SEACBD 98	b	45	1.56
4099	WATERFRONT STCAR 99	b	40	3.66
4103	WHITE CTR-SEA CBD 20	b	15	7.13
4120	WEST FED WAY VAN 901	b	15	8.27
4121	MAPLE VALLEY VAN 912	b	180	33.06
4150	YAR-EVGR-BTC VN 924B	b	10	10.91
4151	FACTRIA-NEWCSTL 219B	b	20	16.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	20	28.40
4155	FACTORIA-BELLVUE 921	b	20	17.80
4156	EVGR-YAR-BTC VN 924A	b	12	10.91
4157	FACTRIA-NEWCSTL 219A	b	10	16.77
4158	KENT DIAL-A-VAN 916	b	30	23.70
4159	ISSQH DIAL-A-VAN 927	b	24	53.50
4160	WDNVL-KRKLND VAN 931	b	20	30.10
4162	CRNATN-RDMND VAN 922	b	30	16.52
4163	DUVAL-N.BEND VAN 929	b	20	63.18
4164	KC CRTHS-Y S CTR 944	b	60	1.09
4165	KENMR-KNGSGT VAN 935	b	30	12.58
4169	CRSSRDS-EGTE VAN 923	b	10	8.68
4181	ANNAPOLIS COMUTER 81	b	75	7.03
4183	POULSBO/BAINBRG X 90	b	45	29.22
4184	KINGSTON/BAINBRDG 91	b	90	33.80
4186	POULSBO/KING-SUQ 92R	b	120	11.50
4187	POULSBO-BAINBR EX 90	b	30	14.59
4188	SUQM P&R/BAINBRDG 91	b	90	8.16
4193	MANZANITA 93	b	60	9.17
4194	AGATE POINT 94	b	60	10.29
4195	BATTLE POINT 95	b	60	9.98
4196	SUNRISE 96	b	60	10.34
4197	CRYSTAL SPRINGS 97	b	60	8.56
4198	FORT WARD 98	b	60	6.07
4199	BILL POINT 99	b	60	6.12
4204	BRANSONWOOD 4	b	90	8.86
4205	CEDAR HEIGHTS 5	b	30	6.46
4206	BETHEL 6	b	90	13.44
4207	SOUTH PARK 7	b	90	13.20
4210	CROSSTOWN EXP 11	b	50	12.56
4212	SILVERDALE WEST 12	b	60	15.08
4213	SILVERDALE LTD 13	b	90	15.00
4215	MCWILLIAMS-SHTTL 15	b	45	9.24
4216	BANGOR EXTENSION 13	b	120	23.48
4217	KITSP MALL LTD 17	b	75	17.66
4220	NAVY YARD CITY 20	b	50	8.18
4221	PERRY AVENUE 21	b	30	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	45	4.59
4225	EAST PARK 25	b	60	10.78
4226	WEST PARK 26	b	60	4.01
4227	OLYMPIC COLLEGE 24R	b	90	4.59
4228	WEST PARK 26R	b	90	4.01

4229	TRENTON AVENUE 29	b	60	6.10
4233	SILVRDL-BAINBRDGE 33	b	90	22.73
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	120	3.58
4236	RIDGETOP SHUTTLE 36	b	120	3.73
4237	SILVRDL-BAINBRDG 33R	b	120	23.31
4263	PT JEFFERSON CMTR 63	b	120	23.02
4266	HANSVILLE COMUTER 66	b	120	17.94
4285	MULLENIX EXPRESS 85	b	120	8.74
4286	SOUTHWORTH SHUTTL 86	b	60	24.90
4287	PURDY EXPRESS 87	b	120	25.50
4947	RNBCH-EVT BOEING 947	b	30	35.28
4948	BLLRD-EVT BOEING 948	b	30	27.58
4949	FEDWY-EVT BOEING 949	b	30	51.80
4950	W SEA-EVT BOEING 950	b	30	33.58
4951	ESTLK-EVT BOEING 951	b	30	25.48
4952	AUB-RN-EV BOEING 952	b	30	64.77
4954	REN-405-EV BOING 954	b	30	34.16
4965	OVRLK-EVT BOEING 965	b	30	31.63
4970	AUB-RENTN BOEING 970	b	30	34.31
5001	BEVERLY LANE 2	b	30	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5005	GLENWOOD-SEAHURST 8	b	60	8.86
5012	SILVER LAKE 20	b	30	28.82
5014	EVT CC-MUKILTEO 23	b	36	22.64
5016	PEACOCK HILL 112	b	60	15.38
5017	GIG HARBOR-TAC 102X	b	45	21.10
5019	DARRNGTN-ARLNGTN 230	b	90	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	30	12.66
5022	LYNNWOOD-BOTHELL 120	b	15	24.74
5024	LYNN-MTLKTER-EDM 140	b	30	18.80
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	30	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5040	EDMONDS-UW 870	b	30	10.74
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	10	16.33
5044	PUGET PK-MARN PR 760	b	60	3.15
5045	GRAN FALLS-EVRTT 280	b	36	35.40
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	30	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	10.64
5052	GRANDVIEW DRIVE 20	b	60	23.28
5053	PAC AVE TO GRAHAM 46	b	60	41.52
5054	N ORCHARD 50	b	40	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56

5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	15	10.02
5059	TIDEFLATS 60	b	45	9.05
5060	PORTLAND AVE 41A	b	90	6.61
5061	PORTLAND AVE 41	b	60	5.65
5062	MCKINLEY AVE 42	b	30	10.94
5063	PORTLAND AVE 41AR	b	30	6.61
5064	YAKIMA 45	b	25	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	35	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.52
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	60	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	15	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	50	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	90	26.38
5086	PACIFIC AVE 46AR	b	45	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	19.38
5088	FEDERAL WAY 500	b	30	22.98
5090	PUYALUP-RIVER RD 400	b	90	10.32
5091	FED WAY EXPRESS 501	b	60	11.43
5092	112TH STREET 410	b	60	32.12
5093	PUYALLUP-ENMCLW 406R	b	60	18.96
5094	BONNEY LK-ENMCLW 406	b	120	10.38
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	24	13.53
5098	NORTH 30TH ST 13	b	30	13.01
5100	GREENWOOD-SEA CBD 5X	b	30	6.81
5101	NGATE-GRNWD-SEACBD 5	b	30	13.42
5102	AURORA VIL-SEA CBD 6	b	20	14.83
5103	BROADVIEW-FREMNT 28E	b	26	12.56
5104	GRNWD-UW-COL CTY 48D	b	90	11.14
5105	COLCTY-UW-CWN PK 48E	b	45	8.58
5106	SUNSET HILL-CBD 17X	b	45	8.03
5107	SUNSET HILL-CBD 17	b	24	17.31
5108	W MAGNOLIA-CBD 19	b	45	7.55
5110	LYLHT-UW-HANF ST 48C	b	60	12.10
5111	RAIN BCH-SEA CBD 39	b	30	10.25
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	24	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72

5118	BROADVIEW-FRE-CBD 28	b	90	12.48
5120	MAGNOLIA-SEA CBD 33	b	20	7.19
5121	GRNLK-FREMNT-CBD 26X	b	36	7.19
5122	ADMRL DIST-BOEING 34	b	90	14.00
5123	HARBOR ISLAND 35	b	90	5.66
5124	ADM DST-ALKI-CBD 37E	b	36	16.78
5126	MAGNOLIA-SEA CBD 33R	b	30	7.99
5127	RAIN BCH-SEA CBD 36	b	30	19.28
5128	LYLHT-UW-COL CTY 48B	b	45	13.15
5129	BEACON HL-SEA CBD 36	b	15	9.58
5130	STNWD-MRYVL-SCBD 422	b	30	34.56
5131	BALLARD LOCKS-UW 46	b	45	5.26
5132	EVERETT-SEA CBD 420	b	60	12.46
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	30	14.98
5135	WTCTR-SSCC-BEACON 50	b	60	19.02
5136	FAUNTLEROY-SEA 54X	b	30	8.16
5137	CBD-ADMIRAL 55R	b	23	7.84
5138	LOYAL HEIGHTS-UW 48X	b	60	7.39
5139	RAIN BCH-SEA CBD 39X	b	60	9.07
5140	GEORGTWN-BROADWAY 60	b	26	6.88
5141	NORTHGATE-UW 68	b	15	13.16
5143	ADM DST-ALKI-CBD 37	b	90	15.41
5144	SEA CBD-RAIN BCH 39R	b	45	11.09
5146	WHITTIER HTS-CBD 28	b	25	7.52
5147	MARYSVIL-SEA CBD 421	b	30	15.78
5148	ADMIRAL-CBD 55	b	15	7.95
5149	SEACBD-RB-S.CTR 39R	b	90	17.48
5151	SHORLN CC-SEACBD 355	b	15	14.68
5152	AURORA V EX 359X	b	18	13.15
5154	BLUE RIDGE EX 15X	b	23	7.17
5156	MARINER PR-SCBD 411	b	10	2.73
5158	WEDGEWD-UW-BOEING 40	b	90	16.69
5159	BOE-MRNR PR-SCBD 411	b	10	8.52
5160	HILNDS-I90-SEA 114	b	36	8.51
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	30	12.18
5163	DES MOINES-SCBD 132	b	20	45.37
5164	BURIEN-SEA CBD 130R	b	60	20.47
5167	BOEING-AUBURN 154	b	20	22.82
5168	FAIRWOOD-STHCNTR 155	b	30	14.25
5169	RENTON CIRCULATR 110	b	15	14.26
5171	FAUNTLEROY-SEA 116X	b	26	9.69
5172	FED WAY-AUBURN 181	b	30	27.20
5173	BURIEN-SEATTLE 136R	b	45	11.75
5174	BURIEN-WCTR-SEA 137R	b	60	13.04
5175	RENTN-BOEING IND 108	b	40	11.59
5176	BLK DIA-RENT-SEA 143	b	20	46.96
5178	SEA-FAUNTLEROY 116R	b	120	9.88
5179	BURTON-VASHN HTS 118	b	60	10.21
5180	DES MOINES-SEA 130E	b	45	19.33
5181	TIMBERLANE-KENT 168	b	30	21.87

5182	BURIEN P&R-UW 133X	b	60	16.82
5183	AMBAUM EXPRESS 136E	b	60	11.26
5184	BURIEN-509-CBD 137E	b	45	11.52
5185	TAHLQH-VASH-SEA 118X	b	120	27.41
5187	BOEING-FEDWAY 173	b	30	20.78
5188	VASH HTS-TAHLQUH 118	b	60	16.30
5189	SHOREWOOD-SCBD 113R	b	60	9.29
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5193	GREENWOOD-SEA CBD 5	b	90	6.77
5196	VASH HTS-BURTON 118	b	120	12.32
5197	KEY CENTER 113	b	45	17.90
5200	UW-SEATTLE CBD 70	b	10	10.93
5202	AURORA V-SEACBD 360E	b	40	12.71
5206	BELLEVUE-RENTON 240	b	12	47.65
5207	BELLEVUE-REDMOND 249	b	15	11.07
5208	BELLEVUE-REDMND 249R	b	12	11.07
5209	MERCER ISLAND 201	b	30	6.75
5210	MERCER IS-UW 205E	b	30	6.94
5216	KIRKLND-TOTEM LK 231	b	15	25.76
5218	REDMOND-KENT 247	b	60	26.25
5219	BOTHELL-UW 372E	b	24	8.73
5220	SHOREWOOD-SEACBD 113	b	30	9.55
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	24	7.76
5224	OVERLKE-TOTEM LK 239	b	20	23.79
5225	SHRLNE-BELVU-BUR 340	b	30	19.68
5228	OVERLAKE-SEACBD 225E	b	25	11.50
5229	MERCER IS. VAN 204	b	15	3.83
5231	FACTRIA-EASTGATE 207	b	20	12.84
5232	LK KTHLN-I90-SEA 111	b	10	15.18
5233	FACTRIA-COUGR MT 208	b	20	12.98
5234	NBND-ISS P&R VAN 209	b	20	41.16
5235	SEA CBD-ISS P&R 215	b	8	6.71
5236	LK SERENE-SEACBD 405	b	20	13.18
5239	MUKILTEO-SEATTLE 409	b	10	21.40
5244	CBD-ALKI-ADM DST 37R	b	25	15.50
5247	BEAC HILL SHUTTLE 38	b	23	4.44
5248	ARBOR HTS-SEA 21E	b	23	12.91
5249	NGATE-WLNGFRD-SEA 16	b	12	21.96
5255	SNOHOM-MONR-SCBD 424	b	60	27.29
5285	DOCKTN-VASH-SEA 119X	b	120	27.42
5286	DOCKTON-VASH HTS 119	b	90	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	30	26.68
5292	N AUB-AUBURN VAN 185	b	45	6.06
5293	S AUB-AUBURN VAN 186	b	36	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	20	37.32
5296	4 FRDMS-NGTE VAN 318	b	45	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5302	EDMONDS-UW 875E	b	30	10.74
5303	EDMONDS-BOEING 147	b	40	14.87

5304	MTLK TERR-BOEING 157	b	40	13.77
5305	CANYON PK-BOEING 187	b	40	14.02
5307	ARLINGTON-BOEING 217	b	120	28.19
5308	BOEING-ARLINGTON 227	b	120	29.16
5311	AURORA VL-BOEING 617	b	120	13.71
5313	AURORA VL-BOEING 767	b	120	8.21
5314	SILVER LAKE-BOEING 3	b	90	9.87
5315	MUKILTEO-BOEING 25	b	60	3.93
5316	BRIER-LYNNWOOD 111	b	30	6.02
5317	EDMONDS-MUKILTEO 190	b	30	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	15	13.93
5320	GREEN RV CC-KENT 164	b	30	16.57
5321	NBND-ISS-SEA CBD 214	b	20	20.81
5322	SEA CENTER-MADRONA 2	b	60	7.61
5323	FIRST HILL-SEACBD 12	b	60	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5325	SPU - S JACKSON 13	b	30	5.29
5326	S JACKSON - SPU 13	b	30	5.35
5327	BROADWAY-GEORGTWN 60	b	45	6.88
5328	BROADWAY-BOEING 60	b	90	10.51
5329	TAHLQUAH-VSH HTS 118	b	120	14.19
5330	BURTON-VASHN HTS 117	b	120	13.74
5332	KENT TC-RENTN TC 169	b	10	24.28
5333	M.C. EXPRESS 135R	b	30	7.53
5334	M.C. EXPRESS 135	b	22	8.12
5335	KENMORE-BELLEVUE 234	b	10	27.94
5337	KENT-RENTON 153	b	20	19.60
5338	RCHMND BCH-NGATE 315	b	15	9.68
5341	RAI BCH-UW-LYLHT 48A	b	20	17.35
5342	COL CTY-UW-LYLHT 48B	b	90	13.15
5343	GRNWD-UW-RAIN BC 48F	b	120	15.31
5347	COLM PK-LSCHI-SEA 27	b	20	5.10
5348	SEA-LSCHI-COLM PK 27	b	25	5.07
5349	HOLLY PK-RANR-CBD 42	b	45	7.90
5350	RAINIER VIEW-CBD 42	b	90	10.07
5351	RAINIER VIEW-CBD 42R	b	30	10.29
5352	BRODVIEW-FRE-CBD 28R	b	30	12.57
5354	ALKI-SEATTLE CBD 56E	b	30	7.46
5356	ALKI-SEATTLE CBD 56R	b	30	7.41
5361	OVRLK-REDMND-ISS 269	b	20	45.87
5362	WDNVL-LKCTY-SEA 312	b	10	20.54
5364	AURORA V EX 359XR	b	60	13.19
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5367	SHRWD-WHTCTR-CBD 20R	b	60	8.73
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	24	6.87
5372	NGATE-RCHMND BCH 315	b	15	9.68
5373	ISSAQUAH CIRCLTR 200	b	15	7.38
5375	MARINER P&R-UW 810	b	30	12.80
5376	UW-MARINER P&R 810	b	30	12.80
5377	MAPLEWOOD-RENTON 908	b	30	27.65

5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.50
5381	BELLEVUE TC-UW 271	b	10	36.84
5382	REDMOND-BEAR CR 291	b	15	20.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	45	10.57
5482	SHIL-BAL-FRE VN B 86	b	36	10.57
5484	UW-LAKECITY 65R	b	10	7.81
5485	UW-LK CITY-NGATE 75	b	30	9.81
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5488	W SEA-SEA CBD 57	b	30	7.65
5489	ADMRL-WSEA JCT VN 51	b	30	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5491	SEA CBD-TUK P&R 129	b	30	11.70
5492	DESMO-HIGH CC VN 189	b	30	10.44
6003	JAC PK-UW-SEACBD 73E	b	10	12.94
6013	KNGS-BTC-RED 230	b	10	45.36
6014	EDMONDS-SEA CBD 404	b	30	4.30
6017	EASTMONT-OVERLKE 442	b	30	18.02
6020	TCC-SR512-OLY 601X	b	60	22.60
6021	OLY-SR512 601X	b	120	10.76
6022	SR512-OLY 603X	b	120	11.06
6023	S.SOUND-TACOMA 605X	b	90	18.43
6027	GIG HAR-TCC-SEA 595X	b	60	45.14
6039	WEDGEWOOD-SCBD 76X	b	10	7.98
6044	TWIN LK-FEDTC VN 187	b	90	9.54
6059	KENNYDALE-RENTON 105	b	10	13.02
6062	MCMICKEN HTS-CBD 170	b	30	16.81
6063	FED WAY-STAC-SEA 174	b	15	47.16
6065	RENTON-SEA CBD 106	b	15	13.21
6066	RENTON-SEA CBD 106R	b	30	13.39
6067	RENTN-RANIER BCH 107	b	20	26.48
6070	FAIRWD-RENTN-SEA 101	b	10	27.20
6071	FAIRWOOD-RENTON 148	b	20	16.20
6072	AUB-KENT TC-SEA 150	b	15	37.62
6073	ENUMCLW-SEA CBD 152E	b	20	45.08
6074	AUBURN-SEA CBD 152E	b	20	15.76
6075	LK MERIDIAN-SEA 158	b	20	23.43
6076	TIMBERLANE-SEA 159	b	30	28.30
6077	GLENCARIN-SEA 160	b	15	30.14
6082	HGHLNE CC-KNT TC 166	b	15	13.92
6087	EAST HILL-CBD 163	b	15	13.23
6088	W.FED WY-SEACBD 178E	b	30	7.48
6091	TWIN LAKES EX 176	b	30	11.80
6093	AIRPORT-FED WAY 194	b	30	5.36
6097	BTC - REDMOND 233	b	36	7.89
6098	REDMOND-BELLVUE 232E	b	30	9.72
6099	REDMOND - BTC 233	b	23	17.04
6100	RCHMND BCH-SCBD 301	b	15	8.66
6103	RCHMND BCH-SCBD 304	b	20	11.50
6106	WDNVILLE-SEACBD 307E	b	10	25.80
6107	SEACBD-WDNVILLE 307E	b	15	21.95

6108	HRZN VW-SEA CBD 308E	b	30	10.60
6110	NOVLTY HLL-SCBD 311E	b	10	31.32
6113	KENMORE-SEA CBD 306E	b	12	15.30
6117	EDMNDS-NGTE-SCBD 317	b	15	10.25
6118	AURORA VIL-NGATE 302	b	20	15.98
6120	SCBD-NGTE-EDMND 317R	b	15	10.05
6122	LYNNWOOD-SCBD 377E	b	30	10.01
6123	SCBD-LYNNWOOD 377ER	b	30	10.01
6125	N. LYNNWOOD-SEA 401E	b	10	6.40
6127	LYNNWOOD-NGATE 377	b	30	10.01
6132	EDMONDS-SEA CBD 403	b	25	5.20
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6142	LOYAL HTS-SEACBD 18E	b	30	9.92
6144	RAINIER BCH-SCBD 36E	b	36	9.71
6149	RAINIER VIEW-CBD 42X	b	36	10.07
6150	ISSQH-EASTGT-CBD 210	b	15	20.32
6156	SEA-FAUNT-WHTCTR 54R	b	30	10.95
6157	WHTCNTR-FAUNT-SEA 54	b	23	11.06
6162	OVRLK-156TH-CBD 229E	b	30	10.52
6165	RDMND-KRKLND-SEA 251	b	10	38.44
6172	KINGSGT-520-SCBD 255	b	10	21.69
6173	RDMND-OVRLK-BELV 253	b	10	21.40
6176	RDMND-KRKLND-CBD 254	b	10	14.98
6181	KNGSGT-RSEHL-CBD 262	b	30	18.92
6186	LAKECITY-UW 65	b	10	7.81
6192	LKCTY-UW-SEA CBD 72E	b	10	12.56
6195	NOAA-SAND PT-UW 74	b	15	8.46
6197	NGATE-LK CITY-UW 75	b	30	9.81
6200	BURIEN-SEATTLE 136	b	90	11.58
6201	BURIEN-WTCTR-SEA 137	b	36	12.87
6202	BRIER-SEA CBD 477	b	26	4.48
6206	MERCR IS-SEA CBD 202	b	15	3.17
6208	SEA CBD-MERCR IS 202	b	15	3.17
6209	DES MOINES-SCBD 132E	b	36	19.24
6210	BURIEN-SEA CBD 132E	b	120	10.44
6211	EVRTT-AURORA VIL 610	b	30	37.56
6212	EVRTT-AURORA VIL 620	b	60	48.46
6213	EVRTT-AURORA VIL 621	b	60	47.60
6214	EDM-AUR VIL-LYN 630	b	30	6.54
6310	OVERLAKE-BOEING 965	b	25	26.95
6330	Auburn PR-Boeing 952	b	25	48.34
6335	Egate PR-Boeing 953	b	25	29.12
6340	Renton Boeing-Boeing	b	25	34.39
6555	TAC-SR512-OLY 603X	b	75	39.40
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
8001	S.VASHON - PT. DEF	f	35	3.72
8002	SEATTLE-BREMERTON	f	50	34.00
8003	SEATTLE-WINSLOW	f	40	17.42
8004	EDMONDS-KINGSTON	f	40	12.00
8005	FAUNTLEROY-VASHON	f	30	7.00
8006	FAUNTLEROY-S.WORTH	f	90	10.00
8007	VASHON-S.WORTH	f	60	4.00

8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	20	3.60
A	Everett-Northgate	b	15	26.10
B1	Everett-SEA CBD	b	15	22.96
CR1	Everett to Tacoma CR	r	30	158.16
CR2	Tacoma to Everett CR	r	45	90.16
I	Redmond-UW	b	10	27.78
J	Fed Way-Bellevue	b	30	45.20
LR1	164th to Tacoma LR	r	8	113.12
LR2	Ngate to Des Moines	r	8	57.04
LR3	Ngate-Redmond (I-90)	r	8	55.96
LR4	Lynwd-T.Lake (I-90)	r	8	79.46
LR5	Lynwd-Seatac (I-405)	r	8	85.66
LR6	Issaq-Factoria (I90)	r	8	11.26
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	7.5	89.54
P	Lakewood-SEA CBD	b	7.5	87.53
t19	Tacoma to Auburn	b	12.5	44.76
t20	Puyallup to Lakewood	b	12.5	24.04
t21	Dupont to Puyallup	b	12.5	40.96
t24	Parkland to Tac CBD	b	12.5	12.92
t26	Dupont TacCBD I5	b	12.5	38.80

2020 Alternative 2 Off-Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	30	10.22
4002	W QU. ANNE-MADRONA 2	b	30	12.97
4003	QUEEN ANNE-MADRONA 3	b	40	15.12
4004	QU ANNE-JUDKINS PK 4	b	40	14.56
4005	NORTHGATE TC-UW 67	b	15	9.43
4006	RAINIER(HEND)-UW 7A	b	60	27.51
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	40	3.67
4009	CAP HILL-SEA CBD 12	b	30	8.37
4010	CAP HILL-SEA CBD 10	b	15	6.99
4012	MADRONA-SEA CBD 3	b	40	8.06
4013	SPU - SEATTLE CBD 13	b	15	2.71
4014	SUMMIT-MT BAKER 14	b	30	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	30	18.01
4023	1ST HILL-SEA CBD 3	b	60	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4031	RAINR(HEND)-BRDWY 7C	b	30	20.59
4032	S RAINIER BCH-UW 7D	b	60	30.47
4033	SEACBD-S RAIN BCH 7E	b	180	8.55
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80

4040	BALLARD-UW-MONTLK 44	b	10	10.29
4045	CAP HILL-MNTLK-UW 43	b	50	7.94
4047	UW-MONTLAKE-CBD 43	b	15	10.48
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.20
4063	HONEYWELL EXPRESS-WD	b	60	36.94
4099	WATERFRONT STCAR 99	b	20	3.66
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	100	33.06
4150	YAR-EVGR-BTC VN 924B	b	30	10.91
4151	FACTRIA-NEWCSTL 219B	b	30	16.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	40	28.40
4155	FACTORIA-BELLVUE 921	b	30	17.80
4156	EVGR-YAR-BTC VN 924A	b	30	10.91
4157	FACTRIA-NEWCSTL 219A	b	30	16.77
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	40	53.50
4160	WDNVL-KRKLND VAN 931	b	40	30.12
4162	CRNATN-RDMND VAN 922	b	60	16.52
4163	DUVAL-N.BEND VAN 929	b	40	63.18
4164	KC CRTHS-Y S CTR 944	b	30	1.09
4165	KENMR-KNGSGT VAN 935	b	40	12.58
4169	CRSSRDS-EGTE VAN 923	b	40	8.68
4183	POULSBO/BAINBRG X 90	b	60	30.16
4185	POULSBO-KINGS-SUQ 92	b	60	28.06
4204	BRANSONWOOD 4	b	60	8.86
4205	CEDAR HEIGHTS 5	b	60	5.82
4206	BETHEL 6	b	60	13.44
4207	SOUTH PARK 7	b	60	13.20
4210	CROSSTOWN EXP 11	b	40	12.56
4212	SILVERDALE WEST 12	b	40	15.08
4213	SILVERDALE LTD 13	b	60	15.00
4217	KITSP MALL LTD 17	b	40	17.58
4220	NAVY YARD CITY 20	b	40	8.18
4221	PERRY AVENUE 21	b	60	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	60	9.18
4225	EAST PARK 25	b	40	10.78
4226	WEST PARK 26	b	60	8.02
4229	TRENTON AVENUE 29	b	60	6.10

4231	TRENTON AVENUE 29R	b	120	6.10
4232	POULSBO-SILVRDALE 32	b	60	19.44
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	60	3.58
4236	RIDGETOP SHUTTLE 36	b	60	3.73
4241	LINCOLN DRIVE 41	b	60	6.12
4242	FRONT STREET 42	b	60	1.89
4243	FRNT ST-VIKING WY 42	b	60	4.02
4286	SOUTHWORTH SHUTTL 86	b	40	24.90
4287	PURDY EXPRESS 87	b	150	25.50
5001	BEVERLY LANE 2	b	50	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5012	SILVER LAKE 20	b	50	28.82
5014	EVT CC-MUKILTEO 23	b	60	22.64
5016	PEACOCK HILL 112	b	60	15.38
5019	DARRNGTN-ARLNGTN 230	b	150	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	40	24.74
5024	LYNN-MTLKTER-EDM 140	b	60	18.80
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	60	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5040	EDMONDS-UW 870	b	30	10.74
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	20	16.35
5045	GRAN FALLS-EVRTT 280	b	60	33.56
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	60	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	8.28
5052	GRANDVIEW DRIVE 20	b	90	23.28
5053	PAC. AVE TO GRAHAM 4	b	60	41.52
5054	N ORCHARD 50	b	60	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	30	10.02
5059	M L KING JR WAY 26	b	30	5.92
5060	PORTLAND AVE 41A	b	60	13.22
5061	PORTLAND AVE 41	b	60	11.30
5062	MCKINLEY AVE 42	b	30	10.94
5064	YAKIMA 45	b	30	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	60	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.98

5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	80	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	30	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	120	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	120	26.38
5086	PACIFIC AVE 46AR	b	120	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	38.28
5088	FEDERAL WAY 500	b	30	23.52
5090	PUYALUP-RIVER RD 400	b	120	20.64
5092	112TH STREET 410	b	60	32.12
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	30	13.53
5098	NORTH 30TH ST 13	b	50	13.01
5099	ORTING 403	b	180	21.58
5101	NGATE-GRNWD-SEACBD 5	b	30	13.42
5102	AURORA VIL-SEA CBD 6	b	30	14.83
5107	SUNSET HILL-CBD 17	b	30	17.31
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	30	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	30	24.85
5120	MAGNOLIA-SEA CBD 33	b	60	7.19
5126	MAGNOLIA-SEA CBD 33R	b	60	6.90
5127	RAIN BCH-SEA CBD 36	b	20	19.28
5128	LYLHT-UW-COL CTY 48B	b	30	13.15
5129	BEACON HL-SEA CBD 36	b	20	9.58
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	30	14.98
5140	GEORGTWN-BROADWAY 60	b	30	13.76
5141	NORTHGATE-UW 68	b	30	13.16
5143	ADM DST-ALKI-CBD 37	b	60	31.68
5148	ADMIRAL-CBD 55	b	30	15.99
5149	SEACBD-RB-S.CTR 39	b	30	35.89
5151	SHORLN CC-SEACBD 355	b	30	14.68
5152	AURORA V EX 359X	b	30	26.30
5156	MARINER PR-SCBD 411	b	60	2.73
5159	BOE-MRNR PR-SCBD 411	b	60	8.52
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	60	24.42
5163	DES MOINES-SCBD 132	b	40	45.37
5168	FAIRWOOD-STHCNTR 155	b	60	23.47
5169	RENTON CIRCULATR 110	b	40	14.26
5172	FED WAY-AUBURN 181	b	30	27.20
5176	BLK DIA-RENT-SEA 143	b	40	46.96

5180	DES MOINES-SEA 130E	b	60	38.25
5181	TIMBERLANE-KENT 168	b	60	21.87
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5197	KEY CENTER 113	b	60	17.90
5200	UW-SEATTLE CBD 70	b	15	10.93
5206	BELLEVUE-RENTON 240	b	15	47.65
5207	BELLEVUE-REDMOND 249	b	40	11.07
5210	UW-MERCER IS 205E	b	60	3.47
5216	KIRKLND-TOTEM LK 231	b	40	25.80
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	15	7.76
5224	OVERLKE-TOTEM LK 239	b	30	23.79
5225	SHRLNE-BELVU-BUR 340	b	30	19.68
5229	MERCER IS. VAN 204	b	30	11.17
5231	FACTRIA-EASTGATE 207	b	30	12.84
5232	LK KTHLN-I90-SEA 111	b	40	15.18
5233	FACTRIA-COUGR MT 208	b	60	12.98
5234	NBND-ISS P&R VAN 209	b	40	41.62
5235	Factoria-ISS P&R 215	b	30	18.38
5236	LK SERENE-SEACBD 405	b	60	13.18
5239	MUKILTEO-SEATTLE 409	b	30	21.40
5247	BEAC HILL SHUTTLE 38	b	20	4.44
5249	NGATE-WLNGFRD-SEA 16	b	30	21.96
5286	DOCKTON-VASH HTS 119	b	150	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	60	26.68
5292	N AUB-AUBURN VAN 185	b	60	6.06
5293	S AUB-AUBURN VAN 186	b	60	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	60	37.32
5296	4 FRDMS-NGTE VAN 318	b	30	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5302	EDMONDS-UW 875E	b	60	10.74
5309	BOEING-STANWOOD 247	b	120	33.29
5312	BOEING-GOLDBAR 727	b	180	39.99
5316	BRIER-LYNNWOOD 111	b	60	6.02
5317	EDMONDS-MUKILTEO 190	b	60	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	15	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5322	SEA CENTER-MADRONA 2	b	30	7.61
5323	FIRST HILL-SEACBD 12	b	30	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5329	TAHLQUAH-VSH HTS 118	b	180	28.38
5332	KENT TC-RENTN TC 169	b	30	23.48
5334	M.C. EXPRESS 135	b	30	22.91
5335	KENMORE-BELLEVUE 234	b	30	27.94
5337	KENT-RENTON 153	b	60	19.60
5338	RCHMND BCH-NGATE 315	b	30	9.68
5347	COLM PK-LSCHI-SEA 27	b	30	10.81
5350	RAINIER VIEW-CBD 42	b	30	21.01
5354	ALKI-SEATTLE CBD 56	b	30	14.82

5361	OVRLK-REDMND-ISS 269	b	20	45.87
5362	WDNVL-LKCTY-SEA 312	b	15	20.54
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	30	6.87
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5375	MARINER P&R-UW 810	b	30	12.80
5376	UW-MARINER P&R 810	b	30	12.80
5377	MAPLEWOOD-RENTON 908	b	40	27.65
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	40	29.50
5381	BELLEVUE TC-UW 271	b	10	36.84
5382	REDMOND-BEAR CR 291	b	40	20.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	35	10.57
5482	SHIL-BAL-FRE VN B 86	b	35	10.57
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5489	ADMRL-WSEA JCT VN 51	b	35	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5492	DESMO-HIGH CC VN 189	b	60	10.44
6003	JAC PK-UW-SEACBD 73E	b	15	12.94
6013	KNGS-BTC-RED 230	b	15	45.36
6017	EASTMONT-OVERLKE 442	b	30	18.02
6024	TAC-SR512-OLY 620X	b	120	31.34
6039	WEDGEWOOD-SCBD 76X	b	15	7.98
6044	TWIN LK-FEDWY TC 187	b	60	9.54
6059	KENNYDALE-RENTON 105	b	40	13.02
6063	FED WAY-STAC-SEA 174	b	15	47.16
6065	RENTON-SEA CBD 106	b	30	26.60
6067	RENTN-RANIER BCH 107	b	30	26.48
6070	FAIRWD-RENTN-SEA 101	b	30	27.20
6071	FAIRWOOD-RENTON 148	b	40	16.24
6072	AUB-KENT TC-SEA 150	b	8	37.62
6073	ENUMCLW-SEA CBD 152E	b	60	45.08
6074	AUBURN-SEA CBD 152E	b	60	15.76
6075	LK MERIDIAN-SEA 158	b	60	23.43
6076	TIMBERLANE-SEA 159	b	60	28.30
6077	GLENCARIN-SEA 160	b	40	30.14
6082	HGHLNE CC-KNT TC 166	b	20	13.92
6088	W.FED WY-SEACBD 178E	b	60	7.48
6091	TWIN LAKES EX 176	b	60	11.80
6093	AIRPORT-FED WAY 194	b	30	5.36
6098	REDMOND-BELLVUE 232E	b	60	9.72
6099	REDMOND - BTC 233	b	60	16.79
6100	RCHMND BCH-SCBD 301	b	30	8.66
6103	RCHMND BCH-SCBD 304	b	60	11.50
6106	WDNVILLE-SEACBD 307E	b	15	25.80
6108	HRZN VW-SEA CBD 308E	b	60	10.60
6110	NOVLTY HLL-SCBD 311E	b	40	31.32
6117	EDMNDS-NGTE-SCBD 317	b	30	10.25
6118	AURORA VIL-NGATE 302	b	30	15.98
6125	N. LYNNWOOD-SEA 401E	b	30	6.40

6127	LYNNWOOD-NGATE 377	b	30	10.01
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6157	FAUNTLEROY-SEACBD 54	b	30	22.21
6165	RDMND-KRKLND-SEA 251	b	20	38.44
6172	KINGSGT-520-SCBD 255	b	40	21.80
6173	RDMND-OVRLK-BELV 253	b	30	21.40
6176	RDMND-KRKLND-CBD 254	b	40	14.98
6181	KNGSGT-RSEHL-CBD 262	b	40	18.92
6186	LAKECITY-UW 65	b	20	7.81
6192	LKCTY-UW-SEA CBD 72E	b	15	12.56
6195	NOAA-SAND PT-UW 74	b	30	8.46
6200	BURIEN-SEATTLE 136	b	60	24.97
6201	BURIEN-WTCTR-SEA 137	b	60	27.55
6209	DES MOINES-SCBD 132E	b	60	38.07
6211	EVRTT-AURORA VIL 610	b	30	37.56
6212	EVRTT-AURORA VIL 620	b	60	48.46
6213	EVRTT-AURORA VIL 621	b	60	47.60
6214	EDM-AUR VIL-LYN 630	b	60	6.54
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
8001	S.VASHON - PT. DEF	f	60	3.72
8002	SEATTLE-BREMERTON	f	90	34.00
8003	SEATTLE-WINSLOW	f	45	17.42
8004	EDMONDS-KINGSTON	f	43	12.00
8005	FAUNTLEROY-VASHON	f	40	7.00
8006	FAUNTLEROY-S.WORTH	f	360	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	30	3.60
A	Everett-Northgate	b	15	26.10
B1	Everett-SEA CBD	b	15	22.96
I	Redmond-UW	b	20	27.78
J	Fed Way-Bellevue	b	30	45.20
LR1	164th to Tacoma LR	r	8	113.12
LR3	Ngate-Redmond (I-90)	r	8	55.96
LR5	Lynwd-Seatac (I-405)	r	8	85.66
LR6	Issaq-Factoria (I90)	r	8	11.26
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	30	89.54
P	Lakewood-SEA CBD	b	30	87.53
t19	Tacoma to Auburn	b	30	44.76
t20	Puyallup to Lakewood	b	30	24.04
t21	Dupont to Puyallup	b	30	40.96
t24	Parkland to Tac CBD	b	30	12.92
t26	Dupont TacCBD I5	b	30	38.80

2020 Alternative 3 AM Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	16	9.60
4002	W QU. ANNE-MADRONA 2	b	25	12.97
4003	QUEEN ANNE-MADRONA 3	b	36	15.12
4004	QU ANNE-JUDKINS PK 4	b	23	14.56
4005	NORTHGATE TC-UW 67	b	10	9.43
4006	RAINR(HEND)-UW 7A	b	26	13.73
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	90	3.67
4009	CAP HILL-SEA CBD 12	b	15	8.37
4010	CAP HILL-SEA CBD 10	b	12	6.99
4011	MADISON PRK-FERRY 11	b	45	8.00
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	20	4.67
4014	SUMMIT-MT BAKER 14	b	20	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	120	8.92
4017	WHITE CTR-SEACBD 20R	b	45	6.94
4018	SEATTLE CBD - SPU 13	b	35	4.62
4019	SUMMIT-SEACBD 14	b	50	6.11
4020	QUEEN ANNE-1ST HLL 3	b	60	5.74
4021	SEA CBD-QUEEN ANNE 3	b	90	3.61
4022	RAINR BCH-SEA CBD 7X	b	23	10.07
4029	UW-RAINR(HEND) 7AR	b	60	13.78
4031	RAINR(HEND)-BRDWY 7C	b	90	10.35
4032	S RAINIER BCH-UW 7D	b	90	15.21
4033	SEACBD-S RAIN BCH 7E	b	26	8.55
4034	UW-S RAINIER BCH 7F	b	30	15.26
4035	BRDWY-S RAINR BCH 7G	b	30	11.72
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4043	CBD-MONTLAKE-UW 43	b	14	5.19
4045	CAP HILL-MNTLK-UW 43	b	30	3.97
4046	Q ANNE-WLNGFRD-UW 45	b	45	4.90
4047	UW-MONTLAKE-CBD 43	b	13	5.29
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.26

4063	HONEYWELL EXPRESS-WD	b	60	37.06
4098	FERRY TERM-SEACBD 98	b	45	1.56
4099	WATERFRONT STCAR 99	b	40	3.66
4103	WHITE CTR-SEA CBD 20	b	15	7.13
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	180	33.06
4150	YAR-EVGR-BTC VN 924B	b	15	10.91
4151	FACTRIA-NEWCSTL 219B	b	30	16.97
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	20	28.40
4155	FACTORIA-BELLVUE 921	b	30	18.00
4156	EVGR-YAR-BTC VN 924A	b	15	10.91
4157	FACTRIA-NEWCSTL 219A	b	15	16.97
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	20	53.50
4160	WDNVL-KRKLND VAN 931	b	30	31.66
4162	CRNATN-RDMND VAN 922	b	30	16.52
4163	DUVAL-N.BEND VAN 929	b	30	63.16
4164	KC CRTHS-Y S CTR 944	b	60	1.09
4165	KENMR-KNGSGT VAN 935	b	30	12.60
4169	CRSSRDS-EGTE VAN 923	b	15	10.64
4181	ANNAPOLIS COMUTER 81	b	75	7.03
4183	POULSBO/BAINBRG X 90	b	45	29.22
4184	KINGSTON/BAINBRDG 91	b	90	33.80
4186	POULSBO/KING-SUQ 92R	b	120	11.50
4187	POULSBO-BAINBR EX 90	b	30	14.59
4188	SUQM P&R/BAINBRDG 91	b	90	8.16
4193	MANZANITA 93	b	60	9.17
4194	AGATE POINT 94	b	60	10.29
4195	BATTLE POINT 95	b	60	9.98
4196	SUNRISE 96	b	60	10.34
4197	CRYSTAL SPRINGS 97	b	60	8.56
4198	FORT WARD 98	b	60	6.07
4199	BILL POINT 99	b	60	6.12
4204	BRANSONWOOD 4	b	90	8.86
4205	CEDAR HEIGHTS 5	b	30	6.46
4206	BETHEL 6	b	90	13.44
4207	SOUTH PARK 7	b	90	13.20
4210	CROSSTOWN EXP 11	b	50	12.56
4212	SILVERDALE WEST 12	b	60	15.08
4213	SILVERDALE LTD 13	b	90	15.00
4215	MCWILLIAMS-SHTTL 15	b	45	9.24
4216	BANGOR EXTENSION 13	b	120	23.48
4217	KITSP MALL LTD 17	b	75	17.66
4220	NAVY YARD CITY 20	b	50	8.18
4221	PERRY AVENUE 21	b	30	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	45	4.59
4225	EAST PARK 25	b	60	10.78
4226	WEST PARK 26	b	60	4.01
4227	OLYMPIC COLLEGE 24R	b	90	4.59

4228	WEST PARK 26R	b	90	4.01
4229	TRENTON AVENUE 29	b	60	6.10
4233	SILVRDL-BAINBRDGE 33	b	90	22.73
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	120	3.58
4236	RIDGETOP SHUTTLE 36	b	120	3.73
4237	SILVRDL-BAINBRDG 33R	b	120	23.31
4263	PT JEFFERSON CMTR 63	b	120	23.02
4266	HANSVILLE COMUTER 66	b	120	17.94
4285	MULLENIX EXPRESS 85	b	120	8.74
4286	SOUTHWORTH SHUTTL 86	b	60	24.90
4287	PURDY EXPRESS 87	b	120	25.50
4947	RNBCH-EVT BOEING 947	b	30	35.28
4948	BLLRD-EVT BOEING 948	b	30	27.58
4949	FEDWY-EVT BOEING 949	b	30	51.80
4950	W SEA-EVT BOEING 950	b	30	33.58
4951	ESTLK-EVT BOEING 951	b	30	25.48
4952	AUB-RN-EV BOEING 952	b	30	48.91
4954	REN-405-EV BOING 954	b	30	34.16
4965	OVRLK-EVT BOEING 965	b	30	31.65
4970	AUB-RENTN BOEING 970	b	30	18.45
5001	BEVERLY LANE 2	b	30	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5005	GLENWOOD-SEAHURST 8	b	60	8.86
5012	SILVER LAKE 20	b	30	28.82
5014	EVT CC-MUKILTEO 23	b	36	22.64
5016	PEACOCK HILL 112	b	60	15.38
5017	GIG HARBOR-TAC 102X	b	45	21.10
5019	DARRNGTN-ARLNGTN 230	b	90	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	12	24.74
5024	LYNN-MTLKTER-EDM 140	b	30	15.84
5025	LYNNWOOD-UW 855E	b	18	15.98
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	30	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	LYNNWOOD-UW 850	b	30	15.08
5037	EVERETT-UW 860	b	30	24.11
5038	MUKILTEO-UW 880	b	45	22.96
5040	EDMONDS-UW 870	b	36	16.38
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	60	13.28
5044	PUGET PK-MARN PR 760	b	60	3.15
5045	GRAN FALLS-EVRTT 280	b	36	35.40
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	30	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	10.64

5052	GRANDVIEW DRIVE 20	b	60	23.28
5053	PAC AVE TO GRAHAM 46	b	60	41.52
5054	N ORCHARD 50	b	40	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	15	10.02
5059	TIDEFLATS 60	b	45	9.05
5060	PORTLAND AVE 41A	b	90	6.61
5061	PORTLAND AVE 41	b	60	5.65
5062	MCKINLEY AVE 42	b	30	10.94
5063	PORTLAND AVE 41AR	b	30	6.61
5064	YAKIMA 45	b	25	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	35	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.52
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	60	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	15	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	50	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	90	26.38
5086	PACIFIC AVE 46AR	b	45	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	19.38
5088	FEDERAL WAY 500	b	30	22.98
5090	PUYALUP-RIVER RD 400	b	90	10.32
5091	FED WAY EXPRESS 501	b	60	11.43
5092	112TH STREET 410	b	60	32.12
5093	PUYALLUP-ENMCLW 406R	b	60	18.96
5094	BONNEY LK-ENMCLW 406	b	120	10.38
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	24	13.53
5098	NORTH 30TH ST 13	b	30	13.01
5100	GREENWOOD-SEA CBD 5X	b	30	6.81
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	21	23.46
5103	BROADVIEW-FREMNT 28E	b	26	12.56
5104	GRNWD-UW-COL CTY 48D	b	90	11.14
5105	COLCTY-UW-CWN PK 48E	b	45	8.58
5106	SUNSET HILL-CBD 17X	b	45	8.03
5107	SUNSET HILL-CBD 17	b	24	17.31
5108	W MAGNOLIA-CBD 19	b	45	7.55
5109	CANYON PARK-SCBD 435	b	36	22.46

5110	LYLHT-UW-HANF ST 48C	b	60	12.10
5111	RAIN BCH-SEA CBD 39	b	30	10.25
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	24	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	90	12.48
5120	MAGNOLIA-SEA CBD 33	b	20	7.19
5121	GRNLK-FREMNT-CBD 26X	b	36	7.19
5122	ADMRL DIST-BOEING 34	b	90	14.00
5123	HARBOR ISLAND 35	b	90	5.66
5124	ADM DST-ALKI-CBD 37E	b	36	16.78
5126	MAGNOLIA-SEA CBD 33R	b	30	7.99
5127	RAIN BCH-SEA CBD 36	b	30	19.28
5128	LYLHT-UW-COL CTY 48B	b	45	13.15
5129	BEACON HL-SEA CBD 36	b	15	9.58
5130	STNWD-MRYVL-SCBD 422	b	60	54.08
5131	BALLARD LOCKS-UW 46	b	45	5.26
5132	EVERETT-SEA CBD 420	b	60	31.98
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	23	21.24
5135	WTCTR-SSCC-BEACON 50	b	60	19.02
5136	FAUNTLEROY-SEA 54X	b	30	8.16
5137	CBD-ADMIRAL 55R	b	23	7.84
5138	LOYAL HEIGHTS-UW 48X	b	60	7.39
5139	RAIN BCH-SEA CBD 39X	b	60	9.07
5140	GEORGTWN-BROADWAY 60	b	26	6.88
5141	NORTHGATE-UW 68	b	15	13.16
5143	ADM DST-ALKI-CBD 37	b	90	15.41
5144	SEA CBD-RAIN BCH 39R	b	45	11.09
5146	WHITTIER HTS-CBD 28	b	25	7.52
5147	MARYSVIL-SEA CBD 421	b	75	36.14
5148	ADMIRAL-CBD 55	b	15	7.95
5149	SEACBD-RB-S.CTR 39R	b	90	17.48
5150	JACKSON PARK-UW 78	b	45	5.48
5152	AURORA V EX 359X	b	18	13.15
5154	BLUE RIDGE EX 15X	b	23	7.17
5156	MARINER PR-SCBD 411	b	18	22.25
5158	WEDGEWD-UW-BOEING 40	b	90	16.69
5159	BOE-MRNR PR-SCBD 411	b	23	28.04
5160	HILNDS-I90-SEA 114	b	36	17.40
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	30	12.18
5163	DES MOINES-SCBD 132	b	90	43.21
5164	BURIEN-SEA CBD 130R	b	60	20.47
5165	BURIEN-SEA CBD 132	b	30	13.09
5166	BURIEN-SEA CBD 132R	b	60	12.55
5167	BOEING-AUBURN 154	b	20	22.82
5168	FAIRWOOD-STHCNTR 155	b	30	23.43
5169	RENTON CIRCULATR 110	b	15	14.44
5171	FAUNTLEROY-SEA 116X	b	26	9.69
5172	FED WAY-AUBURN 181	b	30	27.20

5173	BURIEN-SEATTLE 136R	b	45	11.75
5174	BURIEN-WCTR-SEA 137R	b	60	13.04
5175	RENTN-BOEING IND 108	b	90	11.57
5176	BLK DIA-RENT-SEA 143	b	20	46.92
5177	RENTON-CBD 109	b	10	36.86
5178	SEA-FAUNTLEROY 116R	b	120	9.88
5179	BURTON-VASHN HTS 118	b	60	10.21
5180	DES MOINES-SEA 130E	b	45	19.33
5181	TIMBERLANE-KENT 168	b	60	21.87
5182	BURIEN P&R-UW 133X	b	60	16.82
5183	AMBAUM EXPRESS 136E	b	60	11.26
5184	BURIEN-509-CBD 137E	b	45	11.52
5185	TAHLQH-VASH-SEA 118X	b	120	27.41
5187	BOEING-FEDWAY 173	b	60	20.78
5188	VASH HTS-TAHLQUH 118	b	60	16.30
5189	SHOREWOOD-SCBD 113R	b	60	9.29
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5193	GREENWOOD-SEA CBD 5	b	90	6.77
5195	STAR LK - SEA 192	b	36	20.41
5196	VASH HTS-BURTON 118	b	120	12.32
5197	KEY CENTER 113	b	45	17.90
5200	UW-SEATTLE CBD 70	b	10	10.93
5202	AURORA V-SEACBD 360E	b	40	12.71
5203	NORTHCITY-OVERLK 242	b	30	21.43
5204	SHORELINE-UW 370	b	36	10.61
5205	WOODINVILLE-UW 372E	b	10	14.08
5206	BELLEVUE-RENTON 240	b	15	47.51
5207	BELLEVUE-REDMOND 249	b	15	11.07
5208	BELLEVUE-REDMND 249R	b	15	11.07
5209	MERCER ISLAND 201	b	60	6.75
5210	MERCER IS-UW 205E	b	30	14.80
5213	LK CITY-BELLEVUE 243	b	12	16.90
5216	KIRKLND-TOTEM LK 231	b	15	25.76
5218	REDMOND-KENT 247	b	90	26.17
5219	BOTHELL-UW 372E	b	15	8.73
5220	SHOREWOOD-SEACBD 113	b	30	9.55
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	12	46.02
5223	KINGSGATE-UW 275	b	15	13.92
5224	OVERLKE-TOTEM LK 239	b	30	23.79
5225	SHRLNE-BELVU-BUR 340	b	10	81.19
5228	OVERLAKE-SEACBD 225E	b	24	34.06
5229	MERCER IS. VAN 204	b	30	3.83
5231	FACTRIA-EASTGATE 207	b	30	13.04
5232	LK KTHLN-I90-SEA 111	b	10	39.92
5233	FACTRIA-COUGR MT 208	b	30	13.18
5234	NBND-ISS P&R VAN 209	b	30	41.16
5235	SEA CBD-ISS P&R 215	b	8	19.83
5236	LK SERENE-SEACBD 405	b	25	21.54
5237	SWAMP CRK-BELVUE 407	b	36	17.98
5238	MTLK TER-SEA CBD 408	b	20	15.30
5239	MUKILTEO-SEATTLE 409	b	24	26.91

5241	ISS P&R-SEA CBD 215	b	8	18.58
5244	CBD-ALKI-ADM DST 37R	b	25	15.50
5247	BEAC HILL SHUTTLE 38	b	23	4.44
5248	ARBOR HTS-SEA 21E	b	23	12.91
5249	NGATE-WLNGFRD-SEA 16	b	25	21.96
5250	SWAMP CRK-SEACBD 430	b	30	22.74
5255	SNOHOM-MONR-SCBD 424	b	60	40.37
5285	DOCKTN-VASH-SEA 119X	b	120	27.42
5286	DOCKTON-VASH HTS 119	b	90	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	36	24.82
5292	N AUB-AUBURN VAN 185	b	45	6.06
5293	S AUB-AUBURN VAN 186	b	36	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	20	37.28
5296	4 FRDMS-NGTE VAN 318	b	45	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5300	LYNWOOD-WALNGFRD 840	b	180	10.21
5301	LYNNWOOD-UW 855ER	b	60	12.41
5302	EDMONDS-UW 875E	b	120	15.48
5303	EDMONDS-BOEING 147	b	90	14.87
5304	MTLK TERR-BOEING 157	b	90	13.77
5305	CANYON PK-BOEING 187	b	90	14.00
5307	ARLINGTON-BOEING 217	b	120	28.19
5308	BOEING-ARLINGTON 227	b	120	29.16
5311	AURORA VL-BOEING 617	b	120	13.71
5313	AURORA VL-BOEING 767	b	120	8.21
5314	SILVER LAKE-BOEING 3	b	90	9.87
5315	MUKILTEO-BOEING 25	b	60	3.93
5316	BRIER-LYNNWOOD 111	b	75	3.01
5317	EDMONDS-MUKILTEO 190	b	60	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5321	NBND-ISS-SEA CBD 214	b	15	36.94
5322	SEA CENTER-MADRONA 2	b	36	7.61
5323	FIRST HILL-SEACBD 12	b	60	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5325	SPU - S JACKSON 13	b	90	5.29
5326	S JACKSON - SPU 13	b	35	5.35
5327	BROADWAY-GEORGTWN 60	b	45	6.88
5328	BROADWAY-BOEING 60	b	90	10.51
5329	TAHLQUAH-VSH HTS 118	b	120	14.19
5330	BURTON-VASHN HTS 117	b	120	13.74
5332	KENT TC-RENTN TC 169	b	10	24.36
5333	M.C. EXPRESS 135R	b	30	7.53
5334	M.C. EXPRESS 135	b	22	8.12
5335	KENMORE-BELLEVUE 234	b	10	27.92
5337	KENT-RENTON 153	b	20	19.56
5338	RCHMND BCH-NGATE 315	b	30	9.18
5341	RAI BCH-UW-LYLHT 48A	b	20	17.35
5342	COL CTY-UW-LYLHT 48B	b	90	13.15

5343	GRNWD-UW-RAIN BC 48F	b	120	15.31
5347	COLM PK-LSCHI-SEA 27	b	20	5.10
5348	SEA-LSCHI-COLM PK 27	b	25	5.07
5349	HOLLY PK-RANR-CBD 42	b	45	7.90
5350	RAINIER VIEW-CBD 42	b	90	10.07
5351	RAINIER VIEW-CBD 42R	b	30	10.29
5352	BRODVIEW-FRE-CBD 28R	b	30	12.57
5354	ALKI-SEATTLE CBD 56E	b	30	7.46
5356	ALKI-SEATTLE CBD 56R	b	30	7.41
5357	BEAR CK P&R-UW 276	b	30	13.75
5359	KINGSGATE-SEACBD 252	b	10	18.73
5360	REDMOND-SEACBD 266	b	20	20.00
5361	OVRLK-REDMND-ISS 269	b	20	45.87
5362	WDNVL-LKCTY-SEA 312	b	10	28.04
5363	KENMRE-LKCTY-SEA 312	b	45	13.78
5364	AURORA V EX 359XR	b	90	13.19
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5367	SHRWD-WHTCTR-CBD 20R	b	60	8.73
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	24	6.87
5372	NGATE-RCHMND BCH 315	b	36	9.18
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5377	MAPLEWOOD-RENTON 908	b	30	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.62
5380	ISSAQUAH-BELV-UW 271	b	10	37.42
5381	BELLEVUE TC-UW 271	b	20	20.66
5382	REDMOND-BEAR CR 291	b	15	22.70
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	45	10.57
5482	SHIL-BAL-FRE VN B 86	b	36	10.57
5484	UW-LAKECITY 65R	b	10	7.81
5485	UW-LK CITY-NGATE 75	b	90	9.81
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5487	ISS-SEA CBD 214	b	15	18.55
5488	W SEA-SEA CBD 57	b	30	7.65
5489	ADMRL-WSEA JCT VN 51	b	30	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5491	SEA CBD-TUK P&R 129	b	60	11.70
5492	DESMO-HIGH CC VN 189	b	90	9.82
6003	JAC PK-UW-SEACBD 73E	b	10	12.94
6013	KNGS-BTC-RED 230	b	10	45.32
6014	EDMONDS-SEA CBD 404	b	30	19.25
6016	EDMONDS-OVERLAKE 441	b	60	22.35
6017	EASTMONT-OVERLKE 442	b	30	47.02
6020	TCC-SR512-OLY 601X	b	60	22.60
6021	OLY-SR512 601X	b	120	10.76
6022	SR512-OLY 603X	b	120	11.06
6023	S.SOUND-TACOMA 605X	b	90	18.43
6027	GIG HAR-TCC-SEA 595X	b	60	45.14
6030	BELLEVUE-SEACBD 226	b	8	13.58
6034	BELLEVUE-SEACBD 226R	b	8	13.23

6039	WEDGEWOOD-SCBD 76X	b	10	7.98
6040	NORTHGATE-SEACBD 16E	b	23	10.27
6041	SEACBD-NORTHGTE 16ER	b	60	10.46
6042	BTC-Woodinville 237	b	15	9.97
6043	WOODINVILLE-BTC 237	b	12	9.91
6044	TWIN LK-FEDTC VN 187	b	90	9.54
6059	KENNYDALE-RENTON 105	b	10	12.98
6061	KENT TC-SEA CBD 150	b	20	23.50
6062	MCMICKEN HTS-CBD 170	b	40	16.81
6063	FED WAY-STAC-SEA 174	b	20	47.16
6065	RENTON-SEA CBD 106	b	10	13.19
6066	RENTON-SEA CBD 106R	b	30	13.37
6067	RENTN-RANIER BCH 107	b	15	26.44
6070	FAIRWD-RENTN-SEA 101	b	10	27.32
6071	FAIRWOOD-RENTON 148	b	30	16.36
6072	AUB-KENT TC-SEA 150	b	15	37.62
6073	ENUMCLW-SEA CBD 152E	b	40	41.45
6074	AUBURN-SEA CBD 152E	b	36	26.79
6075	LK MERIDIAN-SEA 158	b	15	32.78
6076	TIMBERLANE-SEA 159	b	40	31.68
6077	GLENCARIN-SEA 160	b	20	30.14
6081	DASH PT - SEA 175E	b	60	28.58
6082	HGHLNE CC-KNT TC 166	b	30	12.92
6083	FEDRL WAY TC-SEA 177	b	15	22.94
6085	STAR LK - SEA 190	b	26	19.65
6086	KENT-SEATTLE CBD 162	b	30	22.95
6087	EAST HILL-CBD 163	b	20	13.21
6088	W.FED WY-SEACBD 178E	b	45	27.24
6091	TWIN LAKES EX 176	b	45	29.56
6092	PAC. HWY S EX 191	b	36	21.24
6093	AIRPORT-FED WAY 194	b	30	57.94
6094	S FED WY-SEA CBD 195	b	60	25.94
6095	S FED WY P&R-SEA 196	b	20	25.58
6096	FEDERAL WAY-UNIV 197	b	36	30.43
6097	BTC - REDMOND 233	b	36	7.89
6098	REDMOND-BELLVUE 232E	b	10	26.18
6099	REDMOND - BTC 233	b	23	17.04
6100	RCHMND BCH-SCBD 301	b	36	16.37
6101	SHORELINE-SEACBD 301	b	36	13.34
6103	RCHMND BCH-SCBD 304	b	36	17.14
6106	WDNVILLE-SEACBD 307E	b	10	31.96
6107	SEACBD-WDNVILLE 307E	b	15	22.55
6108	HRZN VW-SEA CBD 308E	b	60	15.69
6110	NOVLTY HLL-SCBD 311E	b	10	66.70
6113	KENMORE-SEA CBD 306E	b	10	16.96
6117	EDMNDS-NGTE-SCBD 317	b	30	19.26
6118	AURORA VIL-NGATE 302	b	36	15.98
6120	SCBD-NGTE-EDMND 317R	b	60	19.02
6121	LYNNWOOD PR-SEA 401E	b	16	16.49
6122	LYNNWOOD-SCBD 377E	b	45	19.02
6123	SCBD-LYNNWOOD 377ER	b	90	18.79
6125	N. LYNNWOOD-SEA 401E	b	18	19.55

6127	LYNNWOOD-NGATE 377	b	90	10.01
6132	EDMONDS-SEA CBD 403	b	25	21.69
6135	EASTGATE EXP 212E	b	15	9.95
6140	QUEEN ANNE EXP 2E	b	15	4.36
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6142	LOYAL HTS-SEACBD 18E	b	30	9.92
6144	RAINIER BCH-SCBD 36E	b	36	9.71
6146	NORTHGTE-SEACBD 41ER	b	90	10.92
6148	NORTHGATE-SEACBD 41E	b	8	9.73
6149	RAINIER VIEW-CBD 42X	b	36	10.07
6150	ISSQH-EASTGT-CBD 210	b	36	21.08
6156	SEA-FAUNT-WHTCTR 54R	b	30	10.95
6157	WHTCNTR-FAUNT-SEA 54	b	23	11.06
6162	OVRLK-156TH-CBD 229E	b	10	33.08
6165	RDMND-KRKLND-SEA 251	b	10	41.58
6168	CBD-OVRLK-LKWTCL 263	b	10	24.51
6172	KINGSGT-520-SCBD 255	b	10	46.50
6173	RDMND-OVRLK-BELV 253	b	10	21.40
6176	RDMND-KRKLND-CBD 254	b	10	37.02
6181	KNGSGT-RSEHL-CBD 262	b	24	38.42
6182	OVERLAKE-SEACBD 256R	b	60	13.07
6184	REDMND-OVRLK-CBD 263	b	20	20.45
6186	LAKECITY-UW 65	b	10	7.81
6188	RCHMND BCH-SCBD 301R	b	90	13.30
6192	LKCTY-UW-SEA CBD 72E	b	10	12.56
6195	NOAA-SAND PT-UW 74	b	15	8.46
6197	NGATE-LK CITY-UW 75	b	45	9.81
6200	BURIEN-SEATTLE 136	b	90	11.58
6201	BURIEN-WTCTR-SEA 137	b	36	12.87
6202	BRIER-SEA CBD 477	b	26	19.33
6206	MERCR IS-SEA CBD 202	b	15	9.63
6208	SEA CBD-MERCR IS 202	b	90	10.04
6209	DES MOINES-SCBD 132E	b	36	19.24
6210	BURIEN-SEA CBD 132E	b	120	10.44
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04
6214	EDM-AUR VIL-LYN 630	b	60	27.04
6310	OVERLAKE-BOEING 965	b	25	26.99
6330	Auburn PR-Boeing 952	b	25	48.32
6335	Egate PR-Boeing 953	b	25	29.16
6340	Renton Boeing-Boeing	b	25	34.43
6555	TAC-SR512-OLY 603X	b	75	39.40
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	35	3.72
8002	SEATTLE-BREMERTON	f	50	34.00
8003	SEATTLE-WINSLOW	f	40	17.42
8004	EDMONDS-KINGSTON	f	40	12.00
8005	FAUNTLEROY-VASHON	f	30	7.00
8006	FAUNTLEROY-S.WORTH	f	90	10.00
8007	VASHON-S.WORTH	f	60	4.00

8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	20	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	15	47.00
CR1	Everett to Tacoma CR	r	30	158.16
CR2	Tacoma to Everett CR	r	45	90.16
D	Lynnwood-Bellevue	b	15	41.67
F	Issaquah-Ngate	b	10	47.58
G2	Redmond-SEA CBD	b	10	35.62
H	Bellevue-SeaTac	b	10	30.74
I	Redmond-UW	b	10	27.78
J	Fed Way-Bellevue	b	10	65.22
LR1	Roosevelt to Seatac	r	8	49.00
LR2	Roosevelt-I.Distr.	r	8	11.80
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	7.5	89.54
P	Lakewood-SEA CBD	b	7.5	87.53
t18	Bellevue to Puyallup	b	12	78.32
t19	Tacoma to Auburn	b	12.5	44.76
t20	Puyallup to Lakewood	b	12.5	24.04
t21	Dupont to Puyallup	b	12.5	40.96
t24	Parkland to Tac CBD	b	12.5	12.92
t26	Dupont TacCBD I5	b	12.5	38.80

2020 Alternative 3 Off-Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	30	9.60
4002	W QU. ANNE-MADRONA 2	b	30	12.97
4003	QUEEN ANNE-MADRONA 3	b	60	15.12
4004	QU ANNE-JUDKINS PK 4	b	60	14.56
4005	NORTHGATE TC-UW 67	b	15	9.43
4006	RAINIER(HEND)-UW 7A	b	60	27.51
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	JUDKINS PK-SEA CBD 4	b	60	7.96
4009	CAP HILL-SEA CBD 12	b	30	8.37
4010	CAP HILL-SEA CBD 10	b	15	6.99
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	30	9.34
4014	SUMMIT-MT BAKER 14	b	30	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	30	18.01
4020	QUEEN ANNE-1ST HLL 3	b	60	11.48
4023	1ST HILL-SEA CBD 3	b	90	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44

4031	RAINR(HEND)-BRDWY 7C	b	30	20.59
4032	S RAINIER BCH-UW 7D	b	60	30.47
4033	SEACBD-S RAIN BCH 7E	b	180	8.55
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4045	CAP HILL-MNTLK-UW 43	b	50	7.94
4047	UW-MONTLAKE-CBD 43	b	15	10.48
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.20
4063	HONEYWELL EXPRESS-WD	b	60	36.94
4099	WATERFRONT STCAR 99	b	20	3.66
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	100	33.06
4150	YAR-EVGR-BTC VN 924B	b	30	10.91
4151	FACTRIA-NEWCSTL 219B	b	40	16.97
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	30	28.44
4155	FACTORIA-BELLVUE 921	b	30	18.00
4156	EVGR-YAR-BTC VN 924A	b	30	10.91
4157	FACTRIA-NEWCSTL 219A	b	60	16.97
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	30	53.50
4160	WDNVL-KRKLND VAN 931	b	60	31.66
4162	CRNATN-RDMND VAN 922	b	60	16.52
4163	DUVAL-N.BEND VAN 929	b	40	63.16
4164	KC CRTHS-Y S CTR 944	b	30	1.09
4165	KENMR-KNGSGT VAN 935	b	40	12.60
4169	CRSSRDS-EGTE VAN 923	b	60	10.64
4183	POULSBO/BAINBRG X 90	b	60	30.16
4185	POULSBO-KINGS-SUQ 92	b	60	28.06
4204	BRANSONWOOD 4	b	60	8.86
4205	CEDAR HEIGHTS 5	b	60	5.82
4206	BETHEL 6	b	60	13.44
4207	SOUTH PARK 7	b	60	13.20
4210	CROSSTOWN EXP 11	b	40	12.56
4212	SILVERDALE WEST 12	b	40	15.08
4213	SILVERDALE LTD 13	b	60	15.00
4217	KITSP MALL LTD 17	b	40	17.58
4220	NAVY YARD CITY 20	b	40	8.18
4221	PERRY AVENUE 21	b	60	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60

4224	OLYMPIC COLLEGE 24	b	60	9.18
4225	EAST PARK 25	b	40	10.78
4226	WEST PARK 26	b	60	8.02
4229	TRENTON AVENUE 29	b	60	6.10
4231	TRENTON AVENUE 29R	b	120	6.10
4232	POULSBO-SILVRDALE 32	b	60	19.44
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	60	3.58
4236	RIDGETOP SHUTTLE 36	b	60	3.73
4241	LINCOLN DRIVE 41	b	60	6.12
4242	FRONT STREET 42	b	60	1.89
4243	FRNT ST-VIKING WY 42	b	60	4.02
4286	SOUTHWORTH SHUTTL 86	b	40	24.90
4287	PURDY EXPRESS 87	b	150	25.50
5001	BEVERLY LANE 2	b	50	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5012	SILVER LAKE 20	b	50	28.82
5014	EVT CC-MUKILTEO 23	b	60	22.64
5016	PEACOCK HILL 112	b	60	15.38
5019	DARRNGTN-ARLNGTN 230	b	150	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	60	24.74
5024	LYNN-MTLKTER-EDM 140	b	60	15.84
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	60	10.56
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	UW-LYNNWOOD 850	b	120	14.95
5037	UW-EVERETT 860	b	120	23.98
5040	UW-EDMONDS 870	b	120	16.27
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	EDM CC-MAYS POND 150	b	180	13.28
5045	GRAN FALLS-EVRTT 280	b	60	33.56
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	60	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	8.28
5052	GRANDVIEW DRIVE 20	b	90	23.28
5053	PAC. AVE TO GRAHAM 4	b	60	41.52
5054	N ORCHARD 50	b	60	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	30	10.02
5059	M L KING JR WAY 26	b	30	5.92
5060	PORTLAND AVE 41A	b	60	13.22
5061	PORTLAND AVE 41	b	60	11.30
5062	MCKINLEY AVE 42	b	30	10.94
5064	YAKIMA 45	b	30	16.60

5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	60	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.98
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	80	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	30	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	120	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	120	26.38
5086	PACIFIC AVE 46AR	b	120	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	38.28
5088	FEDERAL WAY 500	b	30	23.52
5090	PUYALUP-RIVER RD 400	b	120	20.64
5092	112TH STREET 410	b	60	32.12
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	30	13.53
5098	NORTH 30TH ST 13	b	50	13.01
5099	ORTING 403	b	180	21.58
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	30	20.45
5107	SUNSET HILL-CBD 17	b	30	17.31
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	30	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	30	24.85
5120	MAGNOLIA-SEA CBD 33	b	60	7.19
5126	MAGNOLIA-SEA CBD 33R	b	60	6.90
5127	RAIN BCH-SEA CBD 36	b	20	19.28
5128	LYLHT-UW-COL CTY 48B	b	30	26.30
5129	BEACON HL-SEA CBD 36	b	20	9.58
5133	LYLHT-UW-RAI BCH 48A	b	30	34.60
5140	GEORGTWN-BROADWAY 60	b	30	13.76
5141	NORTHGATE-UW 68	b	30	13.16
5143	ADM DST-ALKI-CBD 37	b	60	31.68
5148	ADMIRAL-CBD 55	b	30	15.99
5149	SEACBD-RB-S.CTR 39	b	30	35.89
5152	AURORA V EX 359X	b	30	26.30
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	60	24.42
5165	BURIEN-SEA CBD 132	b	60	28.17
5168	FAIRWOOD-STHCNTR 155	b	60	23.43
5169	RENTON CIRCULATR 110	b	40	14.44

5172	FED WAY-AUBURN 181	b	30	27.20
5176	BLK DIA-RENT-SEA 143	b	40	46.92
5177	RENTON-CBD 109	b	15	36.86
5180	DES MOINES-SEA 130E	b	60	38.25
5181	TIMBERLANE-KENT 168	b	60	21.87
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5197	KEY CENTER 113	b	60	17.90
5200	UW-SEATTLE CBD 70	b	15	10.93
5204	UW - SHORELINE 370	b	120	10.48
5205	WOODINVILLE-UW 372E	b	90	28.02
5206	BELLEVUE-RENTON 240	b	30	47.51
5207	BELLEVUE-REDMOND 249	b	40	11.07
5210	MERCER IS-UW 205E	b	60	14.80
5216	KIRKLND-TOTEM LK 231	b	40	25.80
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	12	45.86
5224	OVERLKE-TOTEM LK 239	b	60	23.79
5225	SHRLNE-BELVU-BUR 340	b	12	85.19
5229	MERCER IS. VAN 204	b	30	11.17
5231	FACTRIA-EASTGATE 207	b	60	13.04
5232	LK KTHLN-I90-SEA 111	b	20	39.92
5233	FACTRIA-COUGR MT 208	b	60	13.18
5234	NBND-ISS P&R VAN 209	b	30	41.16
5235	SEA CBD-ISS P&R 215	b	8	39.95
5247	BEAC HILL SHUTTLE 38	b	20	4.44
5249	NGATE-WLNGFRD-SEA 16	b	30	21.96
5286	DOCKTON-VASH HTS 119	b	150	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	60	25.64
5292	N AUB-AUBURN VAN 185	b	60	6.06
5293	S AUB-AUBURN VAN 186	b	60	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	40	37.28
5296	4 FRDMS-NGTE VAN 318	b	30	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5301	LYNNWOOD-UW 855ER	b	120	15.85
5309	BOEING-STANWOOD 247	b	120	33.29
5312	BOEING-GOLDBAR 727	b	180	39.99
5317	EDMONDS-MUKILTEO 190	b	60	10.56
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5322	SEA CENTER-MADRONA 2	b	30	7.61
5323	FIRST HILL-SEACBD 12	b	30	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5329	TAHLQUAH-VSH HTS 118	b	180	28.38
5332	KENT TC-RENTN TC 169	b	40	24.36
5334	M.C. EXPRESS 135	b	30	22.91
5335	KENMORE-BELLEVUE 234	b	30	27.92
5337	KENT-RENTON 153	b	60	19.56
5338	RCHMND BCH-NGATE 315	b	30	18.36
5347	COLM PK-LSCHI-SEA 27	b	30	10.81

5350	RAINIER VIEW-CBD 42	b	30	21.01
5354	ALKI-SEATTLE CBD 56	b	30	14.82
5361	OVRLK-REDMND-ISS 269	b	40	45.87
5362	WDNVL-LKCTY-SEA 312	b	15	28.04
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	30	6.87
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5374	MARINR PR-SEACBD 418	b	60	48.39
5375	MARINER P&R-UW 810	b	60	22.78
5376	UW-MARINER P&R 810	b	90	22.65
5377	MAPLEWOOD-RENTON 908	b	60	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	40	29.62
5380	ISSAQUAH-BELV-UW 271	b	20	37.42
5382	REDMOND-BEAR CR 291	b	60	22.70
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	35	10.57
5482	SHIL-BAL-FRE VN B 86	b	35	10.57
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5489	ADMRL-WSEA JCT VN 51	b	35	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5492	DESMO-HIGH CC VN 189	b	60	9.82
6003	JAC PK-UW-SEACBD 73E	b	15	12.94
6013	KNGS-BTC-RED 230	b	15	45.32
6017	EASTMONT-OVERLKE 442	b	30	47.04
6024	TAC-SR512-OLY 620X	b	120	31.34
6030	BELLEVUE-SEACBD 226	b	8	13.58
6039	WEDGEWOOD-SCBD 76X	b	15	7.98
6042	BTC-Woodinville 237	b	12	11.97
6043	WOODINVILLE-BTC 237	b	10	11.91
6044	TWIN LK-FEDWY TC 187	b	60	9.54
6059	KENNYDALE-RENTON 105	b	40	12.98
6061	KENT TC-SEA CBD 150	b	180	39.26
6063	FED WAY-SEA 174	b	30	47.16
6065	RENTON-SEA CBD 106	b	30	26.56
6067	RENTN-RANIER BCH 107	b	30	26.44
6070	FAIRWD-RENTN-SEA 101	b	15	27.32
6071	FAIRWOOD-RENTON 148	b	40	16.36
6072	AUB-KENT TC-SEA 150	b	8	37.62
6077	GLENCARIN-SEA 160	b	30	30.14
6082	HGHLNE CC-KNT TC 166	b	60	12.92
6093	AIRPORT-FED WAY 194	b	30	57.94
6098	REDMOND-BELLVUE 232E	b	12	26.18
6099	REDMOND - BTC 233	b	60	16.79
6106	WDNVILLE-SEACBD 307E	b	15	31.96
6110	NOVLTY HLL-SCBD 311E	b	15	72.70
6117	EDMONDS-NORTHGTE 317	b	30	20.30
6118	AURORA VIL-NGATE 302	b	30	15.98
6127	LYNNWOOD-NGATE 377	b	30	20.02
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6148	NORTHGATE-SEACBD 41E	b	30	21.75

6157	FAUNTLEROY-SEACBD 54	b	30	22.21
6162	OVRLK-156TH-CBD 229E	b	15	33.08
6165	RDMND-KRKLND-SEA 251	b	15	47.58
6172	KINGSGT-520-SCBD 255	b	15	48.50
6173	RDMND-OVRLK-BELV 253	b	20	21.40
6176	RDMND-KRKLND-CBD 254	b	15	43.02
6181	KNGSGT-RSEHL-CBD 262	b	30	38.42
6186	LAKECITY-UW 65	b	20	15.62
6192	LKCTY-UW-SEA CBD 72E	b	15	12.56
6195	NOAA-SAND PT-UW 74	b	30	8.46
6200	BURIEN-SEATTLE 136	b	60	24.97
6201	BURIEN-WTCTR-SEA 137	b	60	27.55
6209	DES MOINES-SCBD 132E	b	60	38.07
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04
6214	EDM-AUR VIL-LYN 630	b	60	27.54
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	60	3.72
8002	SEATTLE-BREMERTON	f	90	34.00
8003	SEATTLE-WINSLOW	f	45	17.42
8004	EDMONDS-KINGSTON	f	43	12.00
8005	FAUNTLEROY-VASHON	f	40	7.00
8006	FAUNTLEROY-S.WORTH	f	360	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	30	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	15	51.02
D	Lynnwood-Bellevue	b	15	45.67
F	Issaquah-Ngate	b	20	47.58
G2	Redmond-SEA CBD	b	10	35.62
H	Bellevue-SeaTac	b	12	32.74
I	Redmond-UW	b	20	27.78
J	Fed Way-Bellevue	b	12	67.22
LR1	Roosevelt to Seatac	r	8	49.00
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	30	89.54
P	Lakewood-SEA CBD	b	30	87.53
t18	Bellevue to Puyallup	b	12	80.32
t19	Tacoma to Auburn	b	30	44.76
t20	Puyallup to Lakewood	b	30	24.04
t21	Dupont to Puyallup	b	30	40.96
t24	Parkland to Tac CBD	b	30	12.92
t26	Dupont TacCBD I5	b	30	38.80

2020 Alternative 4 AM Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	16	9.60
4002	W QU. ANNE-MADRONA 2	b	25	12.97
4003	QUEEN ANNE-MADRONA 3	b	36	15.12
4004	QU ANNE-JUDKINS PK 4	b	23	14.56
4005	NORTHGATE TC-UW 67	b	10	9.43
4006	RAINR(HEND)-UW 7A	b	26	13.73
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	SEA CBD-JUDKINS PK 4	b	90	3.67
4009	CAP HILL-SEA CBD 12	b	15	8.37
4010	CAP HILL-SEA CBD 10	b	12	6.99
4011	MADISON PRK-FERRY 11	b	45	8.00
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	20	4.67
4014	SUMMIT-MT BAKER 14	b	20	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80
4016	SHRWD-WHT CTR-CBD 20	b	120	8.92
4017	WHITE CTR-SEACBD 20R	b	45	6.94
4018	SEATTLE CBD - SPU 13	b	35	4.62
4019	SUMMIT-SEACBD 14	b	50	6.11
4020	QUEEN ANNE-1ST HLL 3	b	60	5.74
4021	SEA CBD-QUEEN ANNE 3	b	90	3.61
4022	RAINR BCH-SEA CBD 7X	b	23	10.07
4029	UW-RAINR(HEND) 7AR	b	60	13.78
4031	RAINR(HEND)-BRDWY 7C	b	90	10.35
4032	S RAINIER BCH-UW 7D	b	90	15.21
4033	SEACBD-S RAIN BCH 7E	b	26	8.55
4034	UW-S RAINIER BCH 7F	b	30	15.26
4035	BRDWY-S RAINR BCH 7G	b	30	11.72
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4043	CBD-MONTLAKE-UW 43	b	14	5.19
4045	CAP HILL-MNTLK-UW 43	b	30	3.97
4046	Q ANNE-WLNGFRD-UW 45	b	45	4.90
4047	UW-MONTLAKE-CBD 43	b	13	5.29
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.26

4063	HONEYWELL EXPRESS-WD	b	60	37.06
4098	FERRY TERM-SEACBD 98	b	45	1.56
4099	WATERFRONT STCAR 99	b	40	3.66
4103	WHITE CTR-SEA CBD 20	b	15	7.13
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	180	33.06
4150	YAR-EVGR-BTC VN 924B	b	30	10.91
4151	FACTRIA-NEWCSTL 219B	b	30	14.77
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	30	28.11
4155	FACTORIA-BELLVUE 921	b	30	17.80
4156	EVGR-YAR-BTC VN 924A	b	30	10.91
4157	FACTRIA-NEWCSTL 219A	b	30	14.77
4158	KENT DIAL-A-VAN 916	b	30	23.70
4159	ISSQH DIAL-A-VAN 927	b	30	53.50
4160	WDNVL-KRKLND VAN 931	b	30	30.42
4161	FACT-NWCSTL DART 925	b	30	15.30
4162	CRNATN-RDMND VAN 922	b	30	16.52
4163	DUVAL-N.BEND VAN 929	b	30	41.51
4164	KC CRTHS-Y S CTR 944	b	60	1.09
4165	KENMR-KNGSGT VAN 935	b	30	12.40
4169	CRSSRDS-EGTE VAN 923	b	30	8.18
4181	ANNAPOLIS COMUTER 81	b	75	7.03
4183	POULSBO/BAINBRG X 90	b	45	29.22
4184	KINGSTON/BAINBRDG 91	b	90	33.80
4186	POULSBO/KING-SUQ 92R	b	120	11.50
4187	POULSBO-BAINBR EX 90	b	30	14.59
4188	SUQM P&R/BAINBRDG 91	b	90	8.16
4193	MANZANITA 93	b	60	9.17
4194	AGATE POINT 94	b	60	10.29
4195	BATTLE POINT 95	b	60	9.98
4196	SUNRISE 96	b	60	10.34
4197	CRYSTAL SPRINGS 97	b	60	8.56
4198	FORT WARD 98	b	60	6.07
4199	BILL POINT 99	b	60	6.12
4204	BRANSONWOOD 4	b	90	8.86
4205	CEDAR HEIGHTS 5	b	30	6.46
4206	BETHEL 6	b	90	13.44
4207	SOUTH PARK 7	b	90	13.20
4210	CROSSTOWN EXP 11	b	50	12.56
4212	SILVERDALE WEST 12	b	60	15.08
4213	SILVERDALE LTD 13	b	90	15.00
4215	MCWILLIAMS-SHTTL 15	b	45	9.24
4216	BANGOR EXTENSION 13	b	120	23.48
4217	KITSP MALL LTD 17	b	75	17.66
4220	NAVY YARD CITY 20	b	50	8.18
4221	PERRY AVENUE 21	b	30	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60
4224	OLYMPIC COLLEGE 24	b	45	4.59
4225	EAST PARK 25	b	60	10.78
4226	WEST PARK 26	b	60	4.01

4227	OLYMPIC COLLEGE 24R	b	90	4.59
4228	WEST PARK 26R	b	90	4.01
4229	TRENTON AVENUE 29	b	60	6.10
4233	SILVRDL-BAINBRDGE 33	b	90	22.73
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	120	3.58
4236	RIDGETOP SHUTTLE 36	b	120	3.73
4237	SILVRDL-BAINBRDG 33R	b	120	23.31
4263	PT JEFFERSON CMTR 63	b	120	23.02
4266	HANSVILLE COMUTER 66	b	120	17.94
4285	MULLENIX EXPRESS 85	b	120	8.74
4286	SOUTHWORTH SHUTTL 86	b	60	24.90
4287	PURDY EXPRESS 87	b	120	25.50
4947	RNBCH-EVT BOEING 947	b	30	35.28
4948	BLLRD-EVT BOEING 948	b	30	27.58
4949	FEDWY-EVT BOEING 949	b	30	51.80
4950	W SEA-EVT BOEING 950	b	30	33.58
4951	ESTLK-EVT BOEING 951	b	30	25.48
4952	AUB-RN-EV BOEING 952	b	30	48.89
4954	REN-405-EV BOING 954	b	30	34.14
4965	OVRLK-EVT BOEING 965	b	30	31.63
4970	AUB-RENTN BOEING 970	b	30	18.45
5001	BEVERLY LANE 2	b	30	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5005	GLENWOOD-SEAHURST 8	b	60	8.86
5012	SILVER LAKE 20	b	30	28.82
5014	EVT CC-MUKILTEO 23	b	36	22.64
5016	PEACOCK HILL 112	b	60	15.38
5017	GIG HARBOR-TAC 102X	b	45	21.10
5019	DARRNGTN-ARLNGTN 230	b	90	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	20	19.70
5024	LYNN-MTLKTER-EDM 140	b	30	15.84
5025	LYNNWOOD-UW 855E	b	18	15.98
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	30	11.06
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	LYNNWOOD-UW 850	b	30	15.08
5037	EVERETT-UW 860	b	30	24.11
5038	MUKILTEO-UW 880	b	45	22.96
5040	EDMONDS-UW 870	b	36	16.38
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	MAYS POND-EDM CC 150	b	30	13.28
5044	PUGET PK-MARN PR 760	b	60	3.15
5045	GRAN FALLS-EVRTT 280	b	36	35.40
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	30	18.14
5050	UPS-TCC 16	b	30	16.40

5051	TACOMA MALL 57	b	30	10.64
5052	GRANDVIEW DRIVE 20	b	60	23.28
5053	PAC AVE TO GRAHAM 46	b	60	41.52
5054	N ORCHARD 50	b	40	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	15	10.02
5059	TIDEFLATS 60	b	45	9.05
5060	PORTLAND AVE 41A	b	90	6.61
5061	PORTLAND AVE 41	b	60	5.65
5062	MCKINLEY AVE 42	b	30	10.94
5063	PORTLAND AVE 41AR	b	30	6.61
5064	YAKIMA 45	b	25	16.60
5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	35	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.52
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	60	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	15	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	50	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	90	26.38
5086	PACIFIC AVE 46AR	b	45	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	19.38
5088	FEDERAL WAY 500	b	30	22.98
5090	PUYALUP-RIVER RD 400	b	90	10.32
5091	FED WAY EXPRESS 501	b	60	11.43
5092	112TH STREET 410	b	60	32.12
5093	PUYALLUP-ENMCLW 406R	b	60	18.96
5094	BONNEY LK-ENMCLW 406	b	120	10.38
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	24	13.53
5098	NORTH 30TH ST 13	b	30	13.01
5100	GREENWOOD-SEA CBD 5X	b	30	6.81
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	21	23.46
5103	BROADVIEW-FREMNT 28E	b	26	12.56
5104	GRNWD-UW-COL CTY 48D	b	90	11.14
5105	COLCTY-UW-CWN PK 48E	b	45	8.58
5106	SUNSET HILL-CBD 17X	b	45	8.03
5107	SUNSET HILL-CBD 17	b	24	17.31
5108	W MAGNOLIA-CBD 19	b	45	7.55

5109	CANYON PARK-SCBD 435	b	30	22.46
5110	LYLHT-UW-HANF ST 48C	b	60	12.10
5111	RAIN BCH-SEA CBD 39	b	30	10.25
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	24	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	90	12.48
5120	MAGNOLIA-SEA CBD 33	b	20	7.19
5121	GRNLK-FREMNT-CBD 26X	b	36	7.19
5122	ADMRL DIST-BOEING 34	b	90	14.00
5123	HARBOR ISLAND 35	b	90	5.66
5124	ADM DST-ALKI-CBD 37E	b	36	16.78
5126	MAGNOLIA-SEA CBD 33R	b	30	7.99
5127	RAIN BCH-SEA CBD 36	b	30	19.28
5128	LYLHT-UW-COL CTY 48B	b	45	13.15
5129	BEACON HL-SEA CBD 36	b	15	9.58
5130	STNWD-MRYVL-SCBD 422	b	60	54.08
5131	BALLARD LOCKS-UW 46	b	45	5.26
5132	EVERETT-SEA CBD 420	b	60	31.98
5133	LYLHT-UW-RAI BCH 48A	b	30	17.25
5134	EDMONDS-SEA CBD 416	b	23	21.24
5135	WTCTR-SSCC-BEACON 50	b	60	19.02
5136	FAUNTLEROY-SEA 54X	b	30	8.16
5137	CBD-ADMIRAL 55R	b	23	7.84
5138	LOYAL HEIGHTS-UW 48X	b	60	7.39
5139	RAIN BCH-SEA CBD 39X	b	60	9.07
5140	GEORGTWN-BROADWAY 60	b	26	6.88
5141	NORTHGATE-UW 68	b	15	13.16
5143	ADM DST-ALKI-CBD 37	b	90	15.41
5144	SEA CBD-RAIN BCH 39R	b	45	11.09
5146	WHITTIER HTS-CBD 28	b	25	7.52
5147	MARYSVIL-SEA CBD 421	b	75	36.14
5148	ADMIRAL-CBD 55	b	15	7.95
5149	SEACBD-RB-S.CTR 39R	b	90	17.48
5150	JACKSON PARK-UW 78	b	45	5.48
5152	AURORA V EX 359X	b	18	13.15
5154	BLUE RIDGE EX 15X	b	23	7.17
5156	MARINER PR-SCBD 411	b	18	22.25
5158	WEDGEWD-UW-BOEING 40	b	90	16.69
5159	BOE-MRNR PR-SCBD 411	b	23	28.04
5160	HILNDS-I90-SEA 114	b	30	17.40
5161	STH CNTR-TUK P&R 124	b	30	12.00
5162	BURIEN-SEA CBD 130	b	30	12.18
5163	DES MOINES-SCBD 132	b	90	43.21
5164	BURIEN-SEA CBD 130R	b	60	20.47
5165	BURIEN-SEA CBD 132	b	30	13.09
5166	BURIEN-SEA CBD 132R	b	60	12.55
5167	BOEING-AUBURN 154	b	20	22.82
5168	FAIRWOOD-STHCNTR 155	b	30	23.43
5169	RENTON CIRCULATR 110	b	15	8.34
5171	FAUNTLEROY-SEA 116X	b	26	9.69

5172	FED WAY-AUBURN 181	b	30	27.20
5173	BURIEN-SEATTLE 136R	b	45	11.75
5174	BURIEN-WCTR-SEA 137R	b	60	13.04
5175	RENTN-BOEING IND 108	b	30	11.57
5176	BLK DIA-RENT-SEA 143	b	30	32.00
5177	RENTON-CBD 109	b	30	17.65
5178	SEA-FAUNTLEROY 116R	b	120	9.88
5179	BURTON-VASHN HTS 118	b	60	10.21
5180	DES MOINES-SEA 130E	b	45	19.33
5181	TIMBERLANE-KENT 168	b	30	21.87
5182	BURIEN P&R-UW 133X	b	60	16.82
5183	AMBAUM EXPRESS 136E	b	60	11.26
5184	BURIEN-509-CBD 137E	b	45	11.52
5185	TAHLQH-VASH-SEA 118X	b	120	27.41
5188	VASH HTS-TAHLQUH 118	b	60	16.30
5189	SHOREWOOD-SCBD 113R	b	60	9.29
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5193	GREENWOOD-SEA CBD 5	b	90	6.77
5195	STAR LK - SEA 192	b	36	20.41
5196	VASH HTS-BURTON 118	b	120	12.32
5197	KEY CENTER 113	b	45	17.90
5200	UW-SEATTLE CBD 70	b	10	10.93
5202	AURORA V-SEACBD 360E	b	40	12.71
5203	NORTHCITY-OVERLK 242	b	30	21.43
5204	SHORELINE-UW 370	b	36	10.61
5205	WOODINVILLE-UW 372E	b	20	14.08
5206	BELLEVUE-RENTON 240	b	30	36.49
5207	BELLEVUE-REDMOND 249	b	30	11.07
5208	BELLEVUE-REDMND 249R	b	30	11.07
5209	MERCER ISLAND 201	b	30	6.75
5210	MERCER IS-UW 205E	b	30	14.80
5213	LK CITY-BELLEVUE 243	b	30	16.90
5216	KIRKLND-TOTEM LK 231	b	30	24.64
5218	REDMOND-KENT 247	b	30	26.17
5219	BOTHELL-UW 372E	b	30	8.73
5220	SHOREWOOD-SEACBD 113	b	30	9.55
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLV TC 340R	b	20	22.87
5223	KINGSGATE-UW 275	b	20	13.92
5224	OVERLKE-TOTEM LK 239	b	30	23.69
5225	SHRLNE-BELVU-BUR 340	b	20	81.19
5228	OVERLAKE-SEACBD 225E	b	30	33.75
5229	MERCER IS. VAN 204	b	20	3.83
5230	FACTRIA-NEWCASTL 206	b	30	5.23
5231	FACTRIA-EASTGATE 207	b	30	6.22
5232	LK KTHLN-I90-SEA 111	b	15	20.93
5233	FACTRIA-COUGR MT 208	b	30	9.63
5234	NBND-ISS P&R VAN 209	b	30	41.16
5235	SEA CBD-ISS P&R 215	b	30	19.83
5236	LK SERENE-SEACBD 405	b	25	21.54
5237	SWAMP CRK-BELVUE 407	b	30	18.00
5238	MTLK TER-SEA CBD 408	b	20	15.30

5239	MUKILTEO-SEATTLE 409	b	24	26.91
5241	ISS P&R-SEA CBD 215	b	30	18.38
5244	CBD-ALKI-ADM DST 37R	b	25	15.50
5247	BEAC HILL SHUTTLE 38	b	23	4.44
5248	ARBOR HTS-SEA 21E	b	23	12.91
5249	NGATE-WLNGFRD-SEA 16	b	25	21.96
5250	SWAMP CRK-SEACBD 430	b	15	22.74
5255	SNOHOM-MONR-SCBD 424	b	30	40.37
5285	DOCKTN-VASH-SEA 119X	b	120	27.42
5286	DOCKTON-VASH HTS 119	b	90	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	30	24.82
5292	N AUB-AUBURN VAN 185	b	45	6.06
5293	S AUB-AUBURN VAN 186	b	36	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	30	37.24
5296	4 FRDMS-NGTE VAN 318	b	45	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5300	LYNWOOD-WALNGFRD 840	b	180	10.21
5301	LYNNWOOD-UW 855ER	b	60	12.41
5302	EDMONDS-UW 875E	b	120	15.48
5303	EDMONDS-BOEING 147	b	90	14.87
5304	MTLK TERR-BOEING 157	b	90	13.77
5305	CANYON PK-BOEING 187	b	30	14.00
5307	ARLINGTON-BOEING 217	b	120	28.19
5308	BOEING-ARLINGTON 227	b	120	29.16
5311	AURORA VL-BOEING 617	b	120	13.71
5313	AURORA VL-BOEING 767	b	120	8.21
5314	SILVER LAKE-BOEING 3	b	90	9.87
5315	MUKILTEO-BOEING 25	b	60	3.93
5316	BRIER-LYNNWOOD 111	b	75	3.01
5317	EDMONDS-MUKILTEO 190	b	60	11.06
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	30	16.57
5321	NBND-ISS-SEA CBD 214	b	30	36.62
5322	SEA CENTER-MADRONA 2	b	36	7.61
5323	FIRST HILL-SEACBD 12	b	60	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5325	SPU - S JACKSON 13	b	90	5.29
5326	S JACKSON - SPU 13	b	35	5.35
5327	BROADWAY-GEORGTWN 60	b	45	6.88
5328	BROADWAY-BOEING 60	b	90	10.51
5329	TAHLQUAH-VSH HTS 118	b	120	14.19
5330	BURTON-VASHN HTS 117	b	120	13.74
5332	KENT TC-RENTN TC 169	b	25	24.20
5333	M.C. EXPRESS 135R	b	30	7.53
5334	M.C. EXPRESS 135	b	22	8.12
5335	KENMORE-BELLEVUE 234	b	20	27.92
5336	RDMND-KRKLN-SEA 251R	b	30	28.02
5337	KENT-RENTON 153	b	30	18.56
5338	RCHMND BCH-NGATE 315	b	30	9.18

5341	RAI BCH-UW-LYLHT 48A	b	20	17.35
5342	COL CTY-UW-LYLHT 48B	b	90	13.15
5343	GRNWD-UW-RAIN BC 48F	b	120	15.31
5347	COLM PK-LSCHI-SEA 27	b	20	5.10
5348	SEA-LSCHI-COLM PK 27	b	25	5.07
5349	HOLLY PK-RANR-CBD 42	b	45	7.90
5350	RAINIER VIEW-CBD 42	b	90	10.07
5351	RAINIER VIEW-CBD 42R	b	30	10.29
5352	BRODVIEW-FRE-CBD 28R	b	30	12.57
5354	ALKI-SEATTLE CBD 56E	b	30	7.46
5356	ALKI-SEATTLE CBD 56R	b	30	7.41
5357	BEAR CK P&R-UW 276	b	30	13.75
5359	KINGSGATE-SEACBD 252	b	10	18.73
5360	REDMOND-SEACBD 266	b	15	18.58
5361	OVRLK-REDMND-ISS 269	b	20	43.89
5362	WDNVL-LKCTY-SEA 312	b	10	19.93
5363	KENMRE-LKCTY-SEA 312	b	24	13.78
5364	AURORA V EX 359XR	b	90	13.19
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5367	SHRWD-WHTCTR-CBD 20R	b	60	8.73
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	24	6.87
5372	NGATE-RCHMND BCH 315	b	36	9.18
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5377	MAPLEWOOD-RENTON 908	b	30	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.04
5380	ISSAQUAH-BELV-UW 271	b	9	37.42
5381	BELLEVUE TC-UW 271	b	30	20.66
5382	REDMOND-BEAR CR 291	b	25	8.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	45	10.57
5482	SHIL-BAL-FRE VN B 86	b	36	10.57
5484	UW-LAKECITY 65R	b	10	7.81
5485	UW-LK CITY-NGATE 75	b	90	9.81
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5487	ISS-SEA CBD 214	b	15	18.23
5488	W SEA-SEA CBD 57	b	30	7.65
5489	ADMRL-WSEA JCT VN 51	b	30	5.38
5490	W SEATTLE-SCENTR 128	b	20	29.09
5491	SEA CBD-TUK P&R 129	b	60	11.70
5492	DESMO-HIGH CC VN 189	b	90	9.82
6003	JAC PK-UW-SEACBD 73E	b	10	12.94
6013	KNGS-BTC-RED 230	b	20	43.94
6014	EDMONDS-SEA CBD 404	b	30	19.25
6016	EDMONDS-OVERLAKE 441	b	30	22.33
6017	EASTMONT-OVERLKE 442	b	30	23.48
6020	TCC-SR512-OLY 601X	b	60	22.60
6021	OLY-SR512 601X	b	120	10.76
6022	SR512-OLY 603X	b	120	11.06
6023	S.SOUND-TACOMA 605X	b	90	18.43
6027	GIG HAR-TCC-SEA 595X	b	60	45.14

6030	BELLEVUE-SEACBD 226	b	7	13.58
6034	BELLEVUE-SEACBD 226R	b	7	13.23
6039	WEDGEWOOD-SCBD 76X	b	10	7.98
6040	NORTHGATE-SEACBD 16E	b	23	10.27
6041	SEACBD-NORTHGTE 16ER	b	60	10.46
6042	BTC-Woodinville 237	b	20	9.97
6043	WOODINVILLE-BTC 237	b	20	9.91
6044	TWIN LK-FEDTC VN 187	b	90	9.54
6059	KENNYDALE-RENTON 105	b	30	10.32
6060	RENTON-SEATTLE 101	b	15	28.76
6061	KENT TC-SEA CBD 150	b	20	23.50
6062	MCMICKEN HTS-CBD 170	b	30	16.81
6063	FED WAY-STAC-SEA 174	b	20	47.16
6065	RENTON-SEA CBD 106	b	15	13.19
6066	RENTON-SEA CBD 106R	b	30	13.37
6067	RENTN-RANIER BCH 107	b	30	26.44
6068	S RENTON-SEATTLE 101	b	30	13.43
6070	FAIRWD-RENTN-SEA 101	b	30	21.55
6071	FAIRWOOD-RENTON 148	b	30	16.20
6072	AUB-KENT TC-SEA 150	b	20	53.58
6073	ENUMCLW-SEA CBD 152E	b	30	41.45
6074	AUBURN-SEA CBD 152E	b	30	26.79
6075	LK MERIDIAN-SEA 158	b	30	32.78
6076	TIMBERLANE-SEA 159	b	30	31.68
6077	GLENCARIN-SEA 160	b	20	30.14
6081	DASH PT - SEA 175E	b	60	28.58
6082	HGHLNE CC-KNT TC 166	b	30	12.92
6083	FEDRL WAY TC-SEA 177	b	15	22.94
6085	STAR LK - SEA 190	b	26	19.65
6086	KENT-SEATTLE CBD 162	b	45	22.95
6087	EAST HILL-CBD 163	b	22	20.82
6088	W.FED WY-SEACBD 178E	b	45	27.24
6091	TWIN LAKES EX 176	b	45	29.56
6092	PAC. HWY S EX 191	b	36	21.24
6093	AIRPORT-FED WAY 194	b	30	57.94
6094	S FED WY-SEA CBD 195	b	60	25.94
6095	S FED WY P&R-SEA 196	b	20	25.58
6096	FEDERAL WAY-UNIV 197	b	36	30.43
6097	BTC - REDMOND 233	b	30	7.89
6098	REDMOND-BELLVUE 232E	b	30	13.10
6099	REDMOND - BTC 233	b	23	17.04
6100	RCHMND BCH-SCBD 301	b	36	16.37
6101	SHORELINE-SEACBD 301	b	36	13.34
6103	RCHMND BCH-SCBD 304	b	36	17.14
6106	WDNVILLE-SEACBD 307E	b	10	21.58
6107	SEACBD-WDNVILLE 307E	b	18	22.55
6108	HRZN VW-SEA CBD 308E	b	60	15.69
6110	NOVLTY HLL-SCBD 311E	b	15	31.58
6113	KENMORE-SEA CBD 306E	b	24	16.96
6117	EDMNDS-NGTE-SCBD 317	b	30	19.26
6118	AURORA VIL-NGATE 302	b	36	15.98
6120	SCBD-NGTE-EDMND 317R	b	60	19.02

6121	LYNNWOOD PR-SEA 401E	b	16	16.49
6122	LYNNWOOD-SCBD 377E	b	45	19.02
6123	SCBD-LYNNWOOD 377ER	b	30	18.79
6125	N. LYNNWOOD-SEA 401E	b	18	19.55
6127	LYNNWOOD-NGATE 377	b	30	10.01
6132	EDMONDS-SEA CBD 403	b	25	21.69
6135	EASTGATE EXP 212E	b	15	11.12
6140	QUEEN ANNE EXP 2E	b	15	4.36
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6142	LOYAL HTS-SEACBD 18E	b	30	9.92
6144	RAINIER BCH-SCBD 36E	b	36	9.71
6146	NORTHGTE-SEACBD 41ER	b	90	10.92
6148	NORTHGATE-SEACBD 41E	b	8	9.73
6149	RAINIER VIEW-CBD 42X	b	36	10.07
6150	ISSQH-EASTGT-CBD 210	b	30	20.36
6156	SEA-FAUNT-WHTCTR 54R	b	30	10.95
6157	WHTCNTR-FAUNT-SEA 54	b	23	11.06
6162	OVRLK-156TH-CBD 229E	b	30	32.77
6168	CBD-OVRLK-LKWTCL 263	b	15	22.81
6172	KINGSGT-520-SCBD 255	b	12	20.42
6173	RDMND-OVRLK-BELV 253	b	20	21.32
6174	RDMND-KRKLN-CBD 254R	b	30	19.36
6176	RDMND-KRKLND-CBD 254	b	30	19.32
6177	KNGSGT-520-SCBD 255R	b	30	20.22
6181	KNGSGT-RSEHL-CBD 262	b	30	19.15
6182	OVERLAKE-SEACBD 256R	b	30	13.07
6184	REDMND-OVRLK-CBD 263	b	30	18.03
6186	LAKECITY-UW 65	b	10	7.81
6188	RCHMND BCH-SCBD 301R	b	90	13.30
6192	LKCTY-UW-SEA CBD 72E	b	10	12.56
6195	NOAA-SAND PT-UW 74	b	15	8.46
6197	NGATE-LK CITY-UW 75	b	45	9.81
6200	BURIEN-SEATTLE 136	b	90	11.58
6201	BURIEN-WTCTR-SEA 137	b	36	12.87
6202	BRIER-SEA CBD 477	b	26	19.33
6206	MERCR IS-SEA CBD 202	b	15	9.63
6208	SEA CBD-MERCR IS 202	b	30	10.04
6209	DES MOINES-SCBD 132E	b	36	19.24
6210	BURIEN-SEA CBD 132E	b	120	10.44
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04
6214	EDM-AUR VIL-LYN 630	b	60	27.04
6310	OVERLAKE-BOEING 965	b	25	26.97
6330	Auburn PR-Boeing 952	b	25	48.32
6335	Egate PR-Boeing 953	b	25	29.14
6340	Renton Boeing-Boeing	b	25	34.41
6555	TAC-SR512-OLY 603X	b	75	39.40
7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	35	3.72
8002	SEATTLE-BREMERTON	f	50	34.00

8003	SEATTLE-WINSLOW	f	40	17.42
8004	EDMONDS-KINGSTON	f	40	12.00
8005	FAUNTLEROY-VASHON	f	30	7.00
8006	FAUNTLEROY-S.WORTH	f	90	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	20	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	20	46.98
CR1	Everett to Tacoma CR	r	30	158.16
CR2	Tacoma to Everett CR	r	45	90.16
D	Lynnwood-Bellevue	b	20	41.63
F	Issaquah-Ngate	b	10	47.58
G2	Redmond-SEA CBD	b	10	35.62
H	Bellevue-SeaTac	b	15	33.20
I	Redmond-UW	b	15	27.78
J	Fed Way-Bellevue	b	30	65.22
LR1	Roosevelt to Seatac	r	8	49.00
LR2	Roosevelt-I.Distr.	r	8	11.80
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	7.5	89.54
P	Lakewood-SEA CBD	b	7.5	87.53
t19	Tacoma to Auburn	b	12.5	44.76
t20	Puyallup to Lakewood	b	12.5	24.04
t21	Dupont to Puyallup	b	12.5	40.96
t24	Parkland to Tac CBD	b	12.5	12.92
t26	Dupont TacCBD I5	b	12.5	38.80

2020 Alternative 4 Off-Peak Transit Network

line	description	mode	headway (min)	length (mi)
4001	KINNEAR-BEACN HILL 1	b	30	9.60
4002	W QU. ANNE-MADRONA 2	b	30	12.97
4003	QUEEN ANNE-MADRONA 3	b	60	15.12
4004	QU ANNE-JUDKINS PK 4	b	60	14.56
4005	NORTHGATE TC-UW 67	b	15	9.43
4006	RAINIER(HEND)-UW 7A	b	60	27.51
4007	S RAINR BCH-BRDWY 7B	b	30	23.55
4008	JUDKINS PK-SEA CBD 4	b	60	7.96
4009	CAP HILL-SEA CBD 12	b	30	8.37
4010	CAP HILL-SEA CBD 10	b	15	6.99
4012	MADRONA-SEA CBD 3	b	60	8.06
4013	SPU - SEATTLE CBD 13	b	30	9.34
4014	SUMMIT-MT BAKER 14	b	30	12.77
4015	BALLARD-SEA CBD 15	b	20	14.80

4016	SHRWD-WHT CTR-CBD 20	b	30	18.01
4020	QUEEN ANNE-1ST HLL 3	b	60	11.48
4023	1ST HILL-SEA CBD 3	b	90	2.44
4024	1ST HILL-SEA CBD 3R	b	60	2.44
4031	RAINR(HEND)-BRDWY 7C	b	30	20.59
4032	S RAINIER BCH-UW 7D	b	60	30.47
4033	SEACBD-S RAIN BCH 7E	b	180	8.55
4039	RAINR BCH-BRDWY-UW 9	b	30	24.80
4040	BALLARD-UW-MONTLK 44	b	10	10.29
4045	CAP HILL-MNTLK-UW 43	b	50	7.94
4047	UW-MONTLAKE-CBD 43	b	15	10.48
4051	BELFAIR-PSNS-WD	b	60	4.33
4052	BREMERTON/KEYPORT-WD	b	60	11.91
4053	FAIRGROUNDS-WD	b	60	8.13
4054	GLENWOOD-WD	b	20	7.37
4055	ILLAHEE-WD	b	60	8.07
4056	KINGSTON-WD	b	60	26.41
4057	LONG LK-PT ORCH-WD	b	60	3.77
4058	MNCHSTR BC PNDRSA-WD	b	30	14.47
4059	PARKWOOD-WD	b	60	8.07
4060	PO TO KEYPORT-WD	b	60	19.71
4061	TRCYTN-RIDGE-WDMR-WD	b	20	7.76
4062	WINSLOW-WD	b	60	32.20
4063	HONEYWELL EXPRESS-WD	b	60	36.94
4099	WATERFRONT STCAR 99	b	20	3.66
4120	WEST FED WAY VAN 901	b	30	8.27
4121	MAPLE VALLEY VAN 912	b	60	33.06
4152	AUBURN-ENUMC VAN 915	b	90	31.66
4154	KINGSGTE-BTC VAN 920	b	40	28.26
4155	FACTORIA-BELLVUE 921	b	40	18.74
4158	KENT DIAL-A-VAN 916	b	60	23.70
4159	ISSQH DIAL-A-VAN 927	b	40	53.50
4160	WDNVL-KRKLND VAN 931	b	40	30.42
4161	FACT-NWCSTL DART 925	b	40	15.30
4163	N.BEND-RDMND VAN 929	b	60	64.50
4164	KC CRTHS-Y S CTR 944	b	30	1.09
4165	KENMR-KNGSGT VAN 935	b	60	12.40
4169	CRSSRDS-EGTE VAN 923	b	30	8.18
4183	POULSBO/BAINBRG X 90	b	60	30.16
4185	POULSBO-KINGS-SUQ 92	b	60	28.06
4204	BRANSONWOOD 4	b	60	8.86
4205	CEDAR HEIGHTS 5	b	60	5.82
4206	BETHEL 6	b	60	13.44
4207	SOUTH PARK 7	b	60	13.20
4210	CROSSTOWN EXP 11	b	40	12.56
4212	SILVERDALE WEST 12	b	40	15.08
4213	SILVERDALE LTD 13	b	60	15.00
4217	KITSP MALL LTD 17	b	40	17.58
4220	NAVY YARD CITY 20	b	40	8.18
4221	PERRY AVENUE 21	b	60	5.28
4222	PERRY AVENUE 21R	b	120	5.28
4223	KARIOTIS/TRACYTON 23	b	120	14.60

4224	OLYMPIC COLLEGE 24	b	60	9.18
4225	EAST PARK 25	b	40	10.78
4226	WEST PARK 26	b	60	8.02
4229	TRENTON AVENUE 29	b	60	6.10
4231	TRENTON AVENUE 29R	b	120	6.10
4232	POULSBO-SILVRDALE 32	b	60	19.44
4234	BANGOR SHUTTLE 34	b	60	7.60
4235	OLD TOWN SHUTTLE 35	b	60	3.58
4236	RIDGETOP SHUTTLE 36	b	60	3.73
4241	LINCOLN DRIVE 41	b	60	6.12
4242	FRONT STREET 42	b	60	1.89
4243	FRNT ST-VIKING WY 42	b	60	4.02
4286	SOUTHWORTH SHUTTL 86	b	40	24.90
4287	PURDY EXPRESS 87	b	150	25.50
5001	BEVERLY LANE 2	b	50	25.72
5003	EVERETT MALL 6	b	30	15.83
5004	EVERGREEN 7	b	30	18.28
5012	SILVER LAKE 20	b	50	28.82
5014	EVT CC-MUKILTEO 23	b	60	22.64
5016	PEACOCK HILL 112	b	60	15.38
5019	DARRNGTN-ARLNGTN 230	b	150	58.50
5020	STANWD-SMOKEY PT 240	b	60	41.46
5021	LYNNWOOD-EDMONDS 110	b	60	12.66
5022	LYNNWOOD-BOTHELL 120	b	40	19.70
5024	LYNN-MTLKTER-EDM 140	b	60	15.84
5026	LYNNWOOD-MILL CR 160	b	30	25.18
5027	LYNWOOD-MUKILTEO 170	b	30	24.56
5028	LYNNWOOD-EDMONDS 180	b	60	10.56
5032	GOLD BAR-EVERETT 720	b	60	66.44
5036	UW-LYNNWOOD 850	b	120	14.95
5037	UW-EVERETT 860	b	120	23.98
5040	UW-EDMONDS 870	b	120	16.27
5041	SMOKEY PT-EVRETT 210	b	30	27.24
5043	EDM CC-MAYS POND 150	b	60	13.28
5045	GRAN FALLS-EVRTT 280	b	60	33.56
5046	LK STEVNS-MRYSVL 260	b	120	32.42
5047	PT FOSDICK 111	b	60	5.16
5048	WASHINGTON 214	b	60	18.14
5050	UPS-TCC 16	b	30	16.40
5051	TACOMA MALL 57	b	30	8.28
5052	GRANDVIEW DRIVE 20	b	90	23.28
5053	PAC. AVE TO GRAHAM 4	b	60	41.52
5054	N ORCHARD 50	b	60	14.12
5055	PARKLAND-MALL 55	b	30	16.22
5056	SIXTH AVE 25	b	15	10.56
5057	S 19TH ST 27	b	15	12.21
5058	S 12TH ST 28	b	30	10.02
5059	M L KING JR WAY 26	b	30	5.92
5060	PORTLAND AVE 41A	b	60	13.22
5061	PORTLAND AVE 41	b	60	11.30
5062	MCKINLEY AVE 42	b	30	10.94
5064	YAKIMA 45	b	30	16.60

5065	PACIFIC AVE 46	b	60	24.76
5066	SHERIDAN-M ST 48	b	30	20.18
5067	UNION AVE 51	b	60	12.62
5068	TCC-TACOMA MALL 52	b	30	8.30
5069	MANITOU 53	b	30	27.94
5070	38TH ST 54	b	30	11.98
5071	56TH ST 56	b	30	13.10
5072	NORTHEAST TACOMA 61	b	80	26.45
5075	GIG HARBOR EXP 100X	b	30	15.54
5076	BRIDGEPORT 200	b	30	13.34
5077	LAKEWOOD-PARKLND 204	b	30	13.40
5078	STEILACOOM 212	b	30	9.94
5079	FORT LEWIS 206	b	30	24.38
5080	LAKEWOOD 210	b	30	20.19
5081	SOUTH TACOMA WAY 300	b	30	15.68
5082	PUYALLUP 400	b	120	21.24
5084	MERIDIAN 402	b	60	38.60
5085	BONNY LK-PRI RDG 407	b	120	26.38
5086	PACIFIC AVE 46AR	b	120	8.91
5087	PUYALLUP-ENUMCLW 406	b	120	38.28
5088	FEDERAL WAY 500	b	30	23.52
5090	PUYALUP-RIVER RD 400	b	120	20.64
5092	112TH STREET 410	b	60	32.12
5096	PEARL ST 10	b	30	9.32
5097	POINT DEFIANCE 11	b	30	13.53
5098	NORTH 30TH ST 13	b	50	13.01
5099	ORTING 403	b	180	21.58
5101	NGATE-GRNWD-SEACBD 5	b	30	21.04
5102	AURORA VIL-SEA CBD 6	b	30	20.45
5107	SUNSET HILL-CBD 17	b	30	17.31
5112	MAGNOLIA-SEA CBD 24	b	30	20.05
5113	LRLHRST-MNTLK-SEA 25	b	30	18.16
5114	GRNLK-DEXTER-CBD 26	b	30	15.29
5115	WHITE CTR-SEA CBD 22	b	30	24.72
5118	BROADVIEW-FRE-CBD 28	b	30	24.85
5120	MAGNOLIA-SEA CBD 33	b	60	7.19
5126	MAGNOLIA-SEA CBD 33R	b	60	6.90
5127	RAIN BCH-SEA CBD 36	b	20	19.28
5128	LYLHT-UW-COL CTY 48B	b	30	26.30
5129	BEACON HL-SEA CBD 36	b	20	9.58
5133	LYLHT-UW-RAI BCH 48A	b	30	34.60
5140	GEORGTWN-BROADWAY 60	b	30	13.76
5141	NORTHGATE-UW 68	b	30	13.16
5143	ADM DST-ALKI-CBD 37	b	60	31.68
5148	ADMIRAL-CBD 55	b	30	15.99
5149	SEACBD-RB-S.CTR 39	b	30	35.89
5152	AURORA V EX 359X	b	30	26.30
5161	STH CNTR-TUK P&R 124	b	60	12.00
5162	BURIEN-SEA CBD 130	b	60	24.42
5165	BURIEN-SEA CBD 132	b	60	28.17
5168	FAIRWOOD-STHCNTR 155	b	60	23.43
5169	RENTON CIRCULATR 110	b	15	8.34

5172	FED WAY-AUBURN 181	b	30	27.20
5180	DES MOINES-SEA 130E	b	60	38.25
5181	TIMBERLANE-KENT 168	b	60	21.87
5190	SH CC-GRNWD-SEACBD 5	b	30	21.72
5197	KEY CENTER 113	b	60	17.90
5200	UW-SEATTLE CBD 70	b	15	10.93
5204	UW - SHORELINE 370	b	120	10.48
5205	WOODINVILLE-UW 372E	b	40	28.02
5206	BELLEVUE-RENTON 240	b	30	36.51
5207	BELLEVUE-REDMOND 249	b	40	22.14
5210	UW-MERCER IS 205E	b	60	14.34
5221	72ND STREET 202	b	30	31.78
5222	BURIEN-BELLVU TC 340	b	40	44.99
5225	SHRLNE-BELVU-BUR 340	b	30	85.29
5229	MERCER IS. VAN 204	b	30	11.17
5234	NBND-ISS P&R VAN 209	b	40	41.16
5235	SEA CBD-ISS P&R 215	b	12	36.76
5247	BEAC HILL SHUTTLE 38	b	20	4.44
5249	NGATE-WLNGFRD-SEA 16	b	30	21.96
5286	DOCKTON-VASH HTS 119	b	150	28.40
5290	AUBURN-S AUBURN 151	b	60	7.22
5291	FED WAY-KENT VAN 183	b	60	25.64
5292	N AUB-AUBURN VAN 185	b	60	6.06
5293	S AUB-AUBURN VAN 186	b	60	7.32
5294	AUB-ALGN-PAC VAN 917	b	60	15.40
5295	BLK DIA-RENT VAN 149	b	60	37.24
5296	4 FRDMS-NGTE VAN 318	b	30	8.94
5298	S TWNLK-FEDTC VN 188	b	60	11.08
5301	LYNNWOOD-UW 855ER	b	120	15.85
5309	BOEING-STANWOOD 247	b	120	33.29
5312	BOEING-GOLDBAR 727	b	180	39.99
5317	EDMONDS-MUKILTEO 190	b	60	10.56
5318	SMOKY PT-ARLNGTN 220	b	60	15.00
5319	SEA-CAP HL-RAIN BC 8	b	30	13.93
5320	GREEN RV CC-KENT 164	b	60	16.57
5322	SEA CENTER-MADRONA 2	b	30	7.61
5323	FIRST HILL-SEACBD 12	b	30	2.02
5324	SEACBD-FIRST HILL 12	b	30	2.59
5329	TAHLQUAH-VSH HTS 118	b	180	28.38
5332	KENT TC-RENTN TC 169	b	30	23.40
5334	M.C. EXPRESS 135	b	30	22.91
5335	KENMORE-BELLEVUE 234	b	30	27.92
5338	RCHMND BCH-NGATE 315	b	30	18.36
5347	COLM PK-LSCHI-SEA 27	b	30	10.81
5350	RAINIER VIEW-CBD 42	b	30	21.01
5354	ALKI-SEATTLE CBD 56	b	30	14.82
5366	SOUTH FEDWAY VAN 903	b	30	14.52
5369	ARBOR HTS-SEA CBD 21	b	30	26.00
5370	MADISON PRK-CBD 11	b	30	6.87
5373	ISSAQUAH CIRCLTR 200	b	30	7.38
5374	MARINR PR-SEACBD 418	b	60	48.39
5375	MARINER P&R-UW 810	b	60	22.78

5376	UW-MARINER P&R 810	b	90	22.65
5377	MAPLEWOOD-RENTON 908	b	60	11.75
5378	LKFRST PK-SHR CC 314	b	36	18.04
5379	OVRL-FCT-BEL VAN 222	b	30	29.08
5380	ISSAQUAH-BELV-UW 271	b	10	37.42
5382	REDMOND-BEAR CR 291	b	50	8.68
5480	UW-FREMNT-MAGNLIA 31	b	30	13.40
5481	SHIL-BAL-FRE VN A 86	b	35	10.57
5482	SHIL-BAL-FRE VN B 86	b	35	10.57
5486	BALLARD-NRGATE-UW 75	b	30	32.50
5489	ADMRL-WSEA JCT VN 51	b	35	5.38
5490	W SEATTLE-SCENTR 128	b	30	29.09
5492	DESMO-HIGH CC VN 189	b	60	9.82
6003	JAC PK-UW-SEACBD 73E	b	15	12.94
6013	KNGS-BTC-RED 230	b	30	43.94
6024	TAC-SR512-OLY 620X	b	120	31.34
6030	BELLEVUE-SEACBD 226	b	10	26.79
6039	WEDGEWOOD-SCBD 76X	b	15	7.98
6044	TWIN LK-FEDWY TC 187	b	60	9.54
6059	KENNYDALE-RENTON 105	b	30	10.32
6060	RENTON-SEATTLE 101	b	20	28.76
6061	KENT TC-SEA CBD 150	b	30	39.26
6063	FED WAY-SEA 174	b	30	47.16
6065	RENTON-SEA CBD 106	b	20	26.56
6067	RENTN-RANIER BCH 107	b	20	26.44
6071	FAIRWOOD-RENTON 148	b	30	16.20
6072	AUB-KENT TC-SEA 150	b	10	53.58
6077	GLENCARIN-SEA 160	b	40	30.14
6082	HGHLNE CC-KNT TC 166	b	30	12.92
6093	AIRPORT-FED WAY 194	b	30	57.94
6099	REDMOND - BTC 233	b	40	16.79
6106	WDNVILLE-SEACBD 307E	b	10	45.23
6117	EDMONDS-NORTHGTE 317	b	30	20.30
6118	AURORA VIL-NGATE 302	b	30	15.98
6127	LYNNWOOD-NGATE 377	b	30	20.02
6141	LOYAL HTS-SEACBD 18	b	20	20.30
6148	NORTHGATE-SEACBD 41E	b	30	21.75
6157	FAUNTLEROY-SEACBD 54	b	30	22.21
6165	RDMND-KRKLND-SEA 251	b	30	56.05
6172	KINGSGT-520-SCBD 255	b	20	40.64
6173	RDMND-OVRLK-BELV 253	b	20	21.32
6176	REDMOND-KIRKLAND 254	b	60	14.38
6186	LAKECITY-UW 65	b	20	15.62
6192	LKCTY-UW-SEA CBD 72E	b	15	12.56
6195	NOAA-SAND PT-UW 74	b	30	8.46
6200	BURIEN-SEATTLE 136	b	60	24.97
6201	BURIEN-WTCTR-SEA 137	b	60	27.55
6209	DES MOINES-SCBD 132E	b	60	38.07
6211	EVRTT-AURORA VIL 610	b	30	33.00
6212	EVRTT-AURORA VIL 620	b	60	43.90
6213	EVRTT-AURORA VIL 621	b	60	43.04
6214	EDM-AUR VIL-LYN 630	b	60	27.54

7013	SEATTLE CNTR-WSTLKE	r	15	1.80
7072	Tacoma LR	r	10	3.92
8001	S.VASHON - PT. DEF	f	60	3.72
8002	SEATTLE-BREMERTON	f	90	34.00
8003	SEATTLE-WINSLOW	f	45	17.42
8004	EDMONDS-KINGSTON	f	43	12.00
8005	FAUNTLEROY-VASHON	f	40	7.00
8006	FAUNTLEROY-S.WORTH	f	360	10.00
8007	VASHON-S.WORTH	f	60	4.00
8008	SEA-BREMERTON PAX	f	60	34.00
8009	VASHON-SEATTLE PAX	f	60	20.00
8021	HORLUCK FERRY PAX	f	30	3.60
A	Everett-Northgate	b	30	53.54
B1	Everett-SEA CBD	b	30	61.78
B2	Ash Way to SEA CBD	b	30	42.78
C	Everett-Bellvue	b	30	50.98
D	Lynnwood-Bellevue	b	40	45.63
F	Issaquah-Ngate	b	12	47.62
G2	Redmond-SEA CBD	b	10	35.62
H	Bellevue-SeaTac	b	30	33.20
I	Redmond-UW	b	20	27.78
J	Fed Way-Bellevue	b	40	67.22
LR1	Roosevelt to Seatac	r	8	49.00
M	SeaTac-W.Sea-SEA CBD	b	30	39.70
N	Tacoma-SeaTac-SEA	b	30	63.29
O	Tacoma-SEA CBD	b	30	89.54
P	Lakewood-SEA CBD	b	30	87.53
t19	Tacoma to Auburn	b	30	44.76
t20	Puyallup to Lakewood	b	30	24.04
t21	Dupont to Puyallup	b	30	40.96
t24	Parkland to Tac CBD	b	30	12.92
t26	Dupont TacCBD I5	b	30	38.80

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An examination of the Highway Capacity Manual does not support the assertion in the comment. The issue of diminishing returns on highway capacity increases was investigated using the 2000 Highway Capacity Manual (HCM). The research showed only minor changes in lane capacity as the number of freeway lanes is increased. As new lanes are added to a freeway there are conflicting factors that increase and decrease the per lane capacity. More lanes means the capacity per lane is increased and there are more opportunities for drivers to move around slower vehicles, but as more lanes are added, the weaving between the lanes to reach the on- and off-ramps is increased lowering the per lane capacity.

The number of lanes on a freeway segment influences the free flow speed. As the number of lanes increases, so does the opportunity for drivers to position themselves to avoid slower-moving traffic. In typical freeway driving, traffic tends to be distributed across lanes according to speed. Traffic in the median lane typically moves faster than traffic in the lane adjacent to the right shoulder. Thus, a four-lane freeway (two-lanes in each direction) provides fewer opportunities for drivers to move around slower traffic than does a freeway with 6, 8, or 10 lanes. Increased maneuverability tends to increase the average speed of vehicles. Exhibit 13-6 from the 2000 Highway Capacity Manual shows how the free flow speed increases as the number of lanes is increased, at the service volumes for each LOS. Table 1 converts Exhibit 13-6 (from the HCM) to per lane volumes and shows that as the number of lanes increases so does the service volume that can be accommodated at each LOS range. Actual counts on multilane freeways may vary from these estimates based upon a variety of physical and operational factors. However, the relative constancy of per-lane volumes demonstrated in the HCM provides a solid basis for traffic engineers to use similar capacities regardless of the freeway size.

Table 1. Number of Lanes compared to Service Volumes

Exhibit 13-6 Example Service Volumes for Basic Freeway Segments (HCM)

Number of Lanes (Urban Freeway)	Free Flow Speed (mi/h)	Service Volumes (veh/hour) for LOS				
		A	B	C	D	E
2	63	1,230	2,030	2,930	3,840	4,560
3	65	1,900	3,110	4,500	5,850	6,930
4	66	2,590	4,250	6,130	7,930	9,360
5	68	3,320	5,430	7,820	10,070	11,850

Assumptions: Urban: 70 mi/h base free-flow speed, 12-ft wide lanes, 6-ft wide shoulders, level terrain, 5 percent heavy vehicles, no driver population adjustment, 0.92 PHF, 0.5 interchanges per mile.

Per Lane Service Volumes for Basic Freeway Segments

Number of Lanes (Urban Freeway)	Free Flow Speed (mi/h)	Service Volumes (veh/hour/lane) for LOS				
		A	B	C	D	E
2	63	615	1,015	1,465	1,920	2,280
3	65	633	1,037	1,500	1,950	2,310
4	66	648	1,063	1,533	1,983	2,340
5	68	664	1,086	1,564	2,014	2,370

Assumptions: Urban: 70 mi/h base free-flow speed, 12-ft wide lanes, 6-ft wide shoulders, level terrain, 5 percent heavy vehicles, no driver population adjustment, 0.92 PHF, 0.5 interchanges per mile.

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APPENDIX N

I-405 Corridor Program EIS
Summary of Improvements Potentially Subject to Shoreline Management Act Regulatory Requirements in the Study Area

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APPENDIX N

I-405 Corridor Program EIS
Summary of Improvements Potentially Subject to Shoreline Management Act Regulatory Requirements in the Study Area

				Alternatives					
	Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #				**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
4.	**High Capacity Transit (Physically Separated, Fixed Guideway HCT)**								
	Tuk. & Renton	T.HCT-1	HCT- SeaTac to Renton CBD		✓	✓			
	Renton	T.HCT-2	HCT-Renton CBD to NE 44th (Port Quendall)		✓	✓			
	Ren< New & Bel	T.HCT-3	HCT- NE 44th (Port Quendall) to Factoria		✓	✓			
	Bell & Issa	T.HCT-4	HCT - Factoria To Issaquah		✓	✓			
	Bellevue	T.HCT-5	HCT Factoria to Downtown Bellevue		✓	✓			
	Bell & Red	T.HCT-6	HCT - Bellevue to Redmond		✓	✓			
	Kirk & King Co	T.HCT-8	HCT - Totem Lake to Bothell		✓	✓			
	Various	T.HCT-9	HCT - Bothell to Lynnwood		✓	✓			
					✓	✓			
4.	**ADD ARTERIAL HOV AND TRANSIT PRIORITY**								
	Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th St to SR 524		✓	✓	✓		
	Bothell	R.HOV-41 & R.IC-11	SR 527 From SE 228th through I-405 interchange						✓
	Renton	R.HOV-43 & R.IC-4	SR 169 from SR 405 to Riverview Park Vicinity - HOV/Transit Preferential treatment		✓	✓	✓		✓
	Renton	R.HOV-44	SW 27th St Corridor in Renton from Oaksdale Ave to SR 167		✓	✓	✓		✓
	Redmond	R.HOV-47	Avondale Rd from Novelty Hill Rd to Avondale Way/ Construct SB HOV lane		✓	✓	✓		✓
	Redmond	R.HOV-55	Willows Rd (Redmond Wy to NE 124 St)		✓	✓	✓		
	Kirkland, Bellevue	R.HOV-56	Lake Washington Blvd (SR 520 to Yarrow Bay) - HOV lanes		✓	✓	✓		✓
	Bellevue	R.HOV-60	Bellevue Way - I-90 to South Bellevue Park and Ride Vicinity		✓	✓	✓		✓
5.	**HOV EXPRESS ON I-405 WITH DIRECT ACCESS RAMPS**								
	ST	HOV-102, R.HOV-58 & R.PA-1	Woodinville Arterial Enhancements/HOV arterial enhancements	✓	✓	✓	✓	✓	✓
	Bothell	R.HOV-62	Vicinity of NE 195th (Bothell Campus)	✓	✓	✓	✓	✓	✓
	Bothell	R.HOV-63	Vicinity of SR 527	✓	✓	✓	✓	✓	✓
	Bellevue	R.HOV-27	SR 90 I/C Fwy to Fwy HOV ramps,			✓	✓	✓	✓
	Bothell	R.HOV-29	SR 522 Fwy to Fwy HOV Ramps			✓	✓	✓	✓
8.	**BASIC I-405 IMPROVEMENTS**								
	Renton	R.BI-1 & R.FR-10	SR 167 Interchange - Direct Connection with auxiliary lane SB SR 169 to SR 167		✓	✓	✓	✓	✓
	Both,King Co,Kirk	R.BI-5	SB SR 522 to 124th continue climbing lane as an auxiliary lane (SB SR 522 to 160th climbing lane)		✓	✓		✓	✓
	Bothell	R.BI-6	NB auxiliary lane SR 522 to SR 527		✓	✓		✓	
	Renton	R.BI-7	Kennydale Hill climbing lane - SR 900 to 44th - NB 900 to 30th, SB 44th - 30th (OPTION)		✓	✓		✓	✓
	Bellevue	R.BI-8	I-90 to Bellevue SB HOV direct connection to I-90 west		✓	✓		✓	
	Bellevue	R.BI-10	Increase SR 405 to Eastbound SR 520 Ramp capacity		✓	✓		✓	✓ ✻
	Renton	R.BI-14	NB Auxilliary Lane I-5 to SR 167		✓	✓		✓	
	Committed Freeway Projects								
	WSDOT	R-55	I-405/SR 167 Interchange/Construct new southbound I-405-to-southbound SR 167 ramp modification.	✓	✓	✓	✓	✓	✓
10.	**ONE ADDITIONAL GP OR AUXILIARY LANE EACH DIRECTION ON I-405**								
	Renton	R.TC-10	One additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C			✓		✓	
	Renton, Nwcas,Bel	R.TC-11	One additional GP lanes in each direction - SR 900/North Renton I/C to SR 90			✓		✓	
	Bellevue	R.TC-12	One additional GP lanes in each direction - SR 90 To SR 520			✓		✓	
	Kirk,K C,Both	R.TC-15	One additional GP lanes in each direction - NE 124th SR 522			✓		✓	
	Bothell,Sno Co	R.TC-16	One additional GP lanes in each direction - SR 522 to SR 527			✓		✓	
11.	**ADD 2 GENERAL PURPOSE LANES EACH DIRECTION ON I-405**								
	Tukwila,Renton	R.TC-1	Two additional GP lanes in each direction - SR 5 Tukwila to SR 167				✓		✓
	Renton	R.TC-2	Two additional GP lanes in each direction - SR 167 to SR 900/North Renton I/C				✓		✓

✻ ***Evaluated within another project.***

✻ ***Project redefined for the Preferred Alternative***

APPENDIX N

I-405 Corridor Program EIS
Summary of Improvements Potentially Subject to Shoreline Management Act Regulatory Requirements in the Study Area

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Renton, Nwcas,Bel	R.TC-3	Two additional GP lanes in each direction - SR 900/North Renton I/C to SR 90				✓		✓
		Kirk,K C,Both	R.TC-7	Two additional GP lanes in each direction - NE 124th SR 522				✓		✓
		Bothell,Sno Co	R.TC-8	Two additional GP lanes in each direction - SR 522 to SR 527				✓		✓
		Sno Co	R.TC-9	Two additional GP lanes in each direction - SR 527 to SR 5 Swamp Creek				✓		✓
13.	**EXPRESS LANES - 2 LANES EACH DIRECTION ON I-405**									
		Tukwila,Renton	R.TC-20 + R.TC-29a	Add Express Lanes - SR 5 Tukwila to SR 167					✓	
		Renton	R.TC-21	Add Express Lanes - SR 167 to SR 900/North Renton I/C					✓	
		Renton, Nwcas,Bel	R.TC-22 + R.TC-33	Add Express Lanes - SR 900/North Renton I/C to SR 90					✓	
		Kirk,K C,Both	R.TC-26 + R.TC-31	Add Express Lanes - NE 124th SR 522					✓	
		Bothell,Sno Co	R.TC-27	Add Express Lanes - SR 522 to SR 527					✓	
		Sno Co	R.TC-29 + R.TC-30	Add Express Lanes - SR 527 to SR 5 Swamp Creek					✓	
13.	**EXPRESS LANES - ACCESS LOCATIONS**									
		Renton, Nwcas,Bel	R.TC-31 + R.TC-26	Slip Ramp - South of NE 160th Street					✓ ✳	
15.	**IMPROVE CONNECTING FREEWAY CAPACITY TO I-405**									
		Bothell, Woodin	R.CF-5	SR 522 Bothell to NE 195th			✓	✓	✓	✓
16.	**IMPLEMENT PLANNED ARTERIAL IMPROVEMENTS** (Note: ID numbers are same as ETP ID's)									
		Snohomish Co.	R-10	SR 524 (24 St SW to SR 527)--- Widen to 4/5 lanes including sidewalks, bike lanes	✓	✓	✓	✓	✓	✓
		Redmond/ WSDOT	R-25	SR 202 Corridor Improvements(East Lake Sammamish Pkwy to Sahalee Way)--- Widen to 3/5 lanes; intersection improvements with bike/ped facilities	✓	✓	✓	✓	✓	✓
		Redmond	R-26	NE 90 St (Willows Rd to SR 202)--- Construct new 4/5 lanes + bike facilities	✓	✓	✓	✓	✓	✓
		Redmond	R-28	West Lake Sammamish Parkway (Leary Way to Bel-Red Rd)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
		Renton	R-36	Oakesdale Ave SW (SW 31st to SW 16th)--- Construct new 5 lane roadway with CGS	✓	✓	✓	✓	✓	✓
		KCDOT	R-47	NE 124 St (Willows Rd to SR 202)--- Widen to 4/5 lanes + CGS, bike facilities; traffic signal.	✓	✓	✓	✓	✓	✓
		Woodinville	R-51	Woodinville-Snohomish Rd/140 Ave NE (NE 175 St to SR 522)--- Widen to 4/5 lanes + CGS, bike lanes	✓	✓	✓	✓	✓	✓
	Planned Arterial Projects									
		Bothell	R.PA-3	SR 522 Multimodal Corridor Project--- Widen SR-522 mostly within existing ROW to provide transit lanes, safety improvements, consolidated driveways & left turn lanes; and sidewalks. (ETP R-107)			✓	✓	✓	✓
		Kenmore/KCDOT	R.PA-11 & R.HOV-53	68 Ave NE (Simonds Rd to SR 522)--- Construct NB HOV lane total of 5/6 lanes (ETP 22)			✓ ✳	✓ ✳	✓	
		Redmond	R.PA-17	Bear Creek Pkwy--- Construct new 162nd Ave NE arterial and new 72nd St arterial w/ bike/ped and CSG; widen Bear Creek Pkwy (ETP R-110)			✓	✓	✓	✓
		Redmond	R.PA-18	Union Hill Rd (Avondale Rd to 196 Ave NE)--- Widen to 4/5 lanes with bike facilities (ETP R-27)			✓	✓	✓	✓
		Renton	R.PA-20	Oakesdale Ave SW (Monster Rd to SR 900) Replace Monster Rd Bridge; widen to 4/5 lanes +Bike Lanes + CGS (ETP R-35)			✓	✓	✓	✓
		Woodinville	R.PA-25 & R.AC-30	SR 522 Interchange Package(SR 522/SR 202 &SR522/195th St)--- Access improvements and new freeway ramps (ETP R-53) (See R.AC-30)			✓	✓	✓	✓
		WSDOT	R.PA-27	SR 520/SR 202 Interchange --- Complete interchange by constructing a new ramp and thru lane on 202 to SR 520 (ETP R-29)			✓	✓	✓	✓
		WSDOT	R.PA-28 & R.AC-17	SR 202 / 140 Place NE (NE 124 St to NE 175 St)--- Widen 4/5 lanes (ETP R-43) (See R.AC-17, 18)			✓	✓	✓	✓
17.	**EXPAND CAPACITY ON NORTH-SOUTH ARTERIALS**									
		King Co, Renton	R.AC-3	138th Ave SE - Construct roadway link to 4/5 lanes- SR 169 to NE 4th St				✓	✓	✓
		King Co,Woodin	R.AC-16	Willows Rd- NE 124th St to NE 145th St- construct new facility -4/5 lanes				✓	✓	✓
		Woodinville	R.AC-17 & R.PA-28	SR 202- NE 145th St to SR 522- widen to 5 lanes				✓ ✳	✓ ✳	✓ ✳
		Red,K C,Woodin	R.AC-18 & R.PA-28	SR 202 - NE 90th to NE 145th					✓ ✳	✓
		Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to SR 524 - Widen by 1 lane each direction					✓	
		Both,S C,Mill Cr	R.AC-20	SR 527/Bothell Everett Hwy - SR 522 to 228th - Widen by 1 lane each direction						✓
		Both,Woodin	R.AC-30 & R.PA-25	SR 202 connection across SR 522 to 120th				✓ ✳	✓ ✳	✓ ✳
		Tukwila	R.AC-35	SR 181- S 180th to S 200th					✓	

✳ ***Evaluated within another project.***

✳ ***Project redefined for the Preferred Alternative***

APPENDIX N

I-405 Corridor Program EIS
Summary of Improvements Potentially Subject to Shoreline Management Act Regulatory Requirements in the Study Area

					Alternatives					
		Jurisdiction		*ACTIONS*	5	1	2	3	4	
Element #					**No Action**	**HCT/TDM**	**Mixed Mode with HCT/Transit Emphasis**	**Mixed Mode**	**General Capacity**	**Preferred**
		Tukwila	R.AC-35	SR 181- Strander to S 200th						✓
		Tukwila	R.AC-36& R.IC-3	SR 181- 144th to Strander Blvd.					✓ ∗	
18.	**UPGRADE ARTERIAL CONNECTIONS TO I-405**									
		Renton	R.IC-4 & R.HOV-43	SR 169 Maple Valley Hwy SR 900 to NE 5th See R.HOV-43			✓ ∗	✓ ∗	✓	✓ ∗
		Bothell	R.IC-11 & R.HOV-41	SR 527- 228th to SR 524			✓	✓	✓	✓
		Bothell	R.IC-21	New SR 405 Interchange at 240th Street SE(Bothell)				✓	✓	✓
19	**CORRIDOR PEDESTRIAN AND BICYCLE IMPROVEMENTS**									
	I-405 Crossings									
		Bothell	NM. CR-2	Fitzgerald Rd/27th Ave. - crossing I-405 from 228th St. SE to 240th St. SE - Add ped/bike facility		✓	✓	✓	✓	✓
		Renton	NM. CR-6	Jackson SW/Longacres Dr SW - crossing I-405 from S. Longacres Way to Monster Rd SW - Add sidewalk/paved shoulder		✓	✓	✓	✓	✓
		Bothell	NM. CR-7	Connection between Sammamish River Trail and North Creek Trail - between SR-522 and NE 195th St. - Add ped/bike overcrossing of I-405		✓	✓	✓	✓	✓
		Bothell	NM. CR-8	SR-527 - crossing I-405 from 220th St SE to 228th St SE - ped/bike facility		✓	✓	✓	✓	✓
	Pedestrian/Bicycle Connections									
		Bothell	NM.P&B-5	North Creek Trail Link - 240th to 232nd - Add ped/bike trail.		✓	✓	✓		✓
		Renton	NM.P&B-14	Cedar River Trail S. Extension - I-405 to Burnett Ave - Add ped/bike facilities		✓	✓	✓		✓
		Renton	NM.P&B-15	Cedar River Trail/Lake Washington Blvd Connector - Cedar River Trail to Lk Wash Blvd Loop - Add ped/bike facilities		✓	✓	✓		✓
		Renton	NM.P&B-16	Cedar-Duwamish Trail Connection - I-405 to Interurban Ave. S. - Add ped/bike facilities		✓	✓	✓		✓
		Tukwila	NM.P&B-19	SR-181/W. Valley Hwy - crossing I-405 from Strander Blvd to Fort Dent Way - Add bike lanes		✓	✓	✓	✓	✓
21.	**I-405 CORRIDOR FREIGHT ENHANCEMENTS**									
		Renton	R.FR-10 & R.BI-1	Modify SR 167 Interchange for East to South Freight movements (modify for "multiple" movements- don't limit to "east to south")		✓ ∗	✓ ∗	✓ ∗	✓ ∗	✓ ∗

∗ ***Evaluated within another project.***
∗ ***Project redefined for the Preferred Alternative***